POLITICS OF THE HIGHLY IMPROBABLE: ANTICIPATION, CATASTROPHE, SECURITY

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Acknowledgments

A dissertation is, in the end, neither conclusion nor summation. As a piece of writing it signifies the finale to a period of study, offering a testament of one's knowledge, but also an opening to another stage that, if carried about properly, only continues the work that one has engaged for many years already. Despite that this document represents years of thought and research, however broad its topic or deep its claims, it does not summarize an intellectual decade of a life any more than an intense conversation might. It cannot represent such breadth because as wide as its interest it only presents an infinitesimally small fraction of what was learned in that time, debated passionately, and thus meagerly illustrates only fragments of what was thought and said, let alone what had transpired. Yet it does express a life – or at least a period, a phase, or a moment of one's life – in which other things ceded the foreground and the issues represented below took precedence. Such it the paradox of writing: One must limit with a certain degree of what can only be understood as intellectual violence what *could* be said in favor of what *can* be said.

I say this because during this period of writing I sacrificed the least, and those that I love sacrificed the most – at least insofar as our interactions went. The irony is that without their support this dissertation could never have been written. In that sense a dissertation could be thought a supreme act of selfishness. One might more sympathetically call the reliance upon others a pathetic dependence, and it certainly is a form of that, but it is also a form of power – in which, together in common, a product can come to fruition by way of imparting not the abstract ideas of love and support or care, but also the empowerment to endure. Spinoza refers to this in the spirit of true friendship, wherein the pursuit of truth allows interconnection and strength as friends persist in their differences.[1]

I knew this long before encountering Spinoza because I am the son and grandson of teachers whose lives were dedicated to human flourishing. Their careers – if one can call the work of a teacher by such a trivializing and mitigating word – operated outside of the parameters of delivering knowledge, but rested instead upon the belief that education – and especially so of the disabled and marginalized – meant empowerment. For them the idea that one person can affect another in order to learn to navigate the world more fluently was the noblest work that could be undertaken. Education isn't in this sense a

[1] Spinoza, *Ethics*, Part IV, Proposition 37, Scholium 1.

form of transmitting useful knowledge, or rendering a person more fit to be configured into the labor force, but a sense of mentorship, of subtle guidance, and enacting of a specific kind of love that grants another a fuller orientation to the world.

I came to the seeds of this dissertation on the final day of a seminar taught by Antonio Vázquez-Arroyo organized under the themes of catastrophe, memory and the Enlightenment. After reading broadly in political theory, philosophy, history, literature, and cultural studies we had circumnavigated the organizing concepts without reading directly much in the way of confronting any of these ideas in the most concerted sense. In the final moments, consternated, I blurted: "I still don't think I even know what a catastrophe *is*." Professor Vázquez-Arroyo simply nodded, and it should be noted, very calmly and kindly, asked what I thought. I replied: "It cannot be anything but a signature of cost – it's the worst cost. It shows us what people think would be the most devastating to lose." To be honest, I had literally no idea what I meant by that. But as many things productive, the statement caused me to revisit it and ask myself what I might have meant – trying to retroactively impart meaning to a more or less meaningless, though hopeful, stab in the dark. Building out from this nonsense grew a project seeking to determine, in the absence of knowledge about the worst of what might come, how human beings organize themselves with the hope to survive.

In so doing, I argue below that in the particularities of that pursuit one can detect the expression of how a society thinks collectively, what it thinks about when it thinks about its survival, and how in that very process it could be inferred what a political society cares about. If, in hopes to survive, a political society has come to fear most the abstract idea of a "coming catastrophe," then what its members attend to, in a way, demonstrate what it fears losing most – in this sense, a catastrophe (in the imaginative, future-oriented sense) is a "signature of cost." Professor Vázquez-Arroyo was very helpful in the early formation of my ideas, he introduced me to the newest literature, much of what is referred to here (though only a fraction of its total scope), and his own writing preoccupies a significant portion of the dissertation's core chapter on what I provisionally adopt following some of that literature as "catastrophism." We have not spoken in a long time, but he deserves thanks for helping to foster me and this project at its earliest stages.

I came to the University of Minnesota with full knowledge in mind that it would take approximately a decade of my life. In retrospect it gave me these years – to put it as a loss would be backward at best. Among graduate schools, I had several excellent options, but the notion of working across disciplines with Bruce Braun, Cesare Casarino, and Bud Duvall drew my interest more than any other place. Despite its frigid weather, I imagined it to be a place of avant-garde ideas that might help me transform into the thinker that I imagined myself possibly capable of becoming. Each of these three people have shaped me indelibly, though in different ways. Bruce, in his constant questioning of "what's at stake," brought me from abstract ontological concepts to political practice and sturdier considerations of empirical reality and its problems. Cesare taught me that philosophy could be read – and lived – as a form of art, as literature, which is to say both radically and creatively transformative and poetic. And Bud led me to question my deepest views about the world – those implicit ideas that we take for granted sometimes –

as expressive of ideology, subjectivity, and political structure; to remain ruthlessly critical, not just of as Marx once put it, "of the existing order," but also of my own innate presumptions. Together they formed a critical triad, underlying my advancement, and demonstrated by example what it means to be an intellectual of the highest order. For whatever depth I carry as a scholarly person, it is due to their uncompromising example. Midway through my graduate career Joan Tronto joined our faculty, and joined Bud as my advisor. Joan in my opinion is a towering intellectual, someone who represents the highest standards of the pursuit of knowledge, but also demonstrates her mastery over the history of political ideas with poise and – unsurprisingly for those who know her writing – care. Each of these thinkers and teachers taught me as much by example as they did through their pedagogical labor. I am forever changed for having spent this time with them, and forever humbled by their accomplishment.

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I should also say that I have probably learned more from my brother, Joshua, in his infinite love, support, and biting criticism than anyone else. I have known him for all but four of my years. I am blessed to know him, watch him navigate a life we have shared, and to look up to him.

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For my first teachers
Who gave me language
And therefore
A world:

Terry and Louis Kindervater

&

Elizabeth Ryan

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Isn't it strange to see an event happening
precisely because it was not supposed to happen?
What kind of defense do we have against that?
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One can attain security against other things,
but when it comes to death all men live in a city without walls.
–Epicurus

PART ONE

The Future as Security Problem

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Preface: Not Yet

I. Introduction

Future catastrophes pose intensifying threats to human life. The climate is warming; warfare is becoming less conventional; economic turbulence is increasing; global interconnectedness escalates risks of pandemic. We live in an age defined by extreme precariousness, where human life hangs in the balance of often surprising and perhaps even irremediable future disasters. Highly improbable, yet high impact events vex human security at every turn.[2] Richard Posner summarizes the problem well: "…the low probability of such disasters – frequently the unknown probability, as in the case of

[2] This couplet, joining the highly improbable with the high impact is borrowed from Nassim Taleb's well-known *The Black Swan* (2010). I take from his central thesis the title of my dissertation, though little else besides the notion that often unforeseen events which were highly improbable can have enormous impacts. This is more or less the way that I understand and define catastrophe, though in a more Bergsonian sense via Jean-Pierre Dupuy, as I explore in Chapter One below.

bioterrorism and abrupt global warming – is among the things that baffle efforts at responding rationally to them. But respond we must…"[3]

But, respond to *what*, exactly? We cannot understand such an imperative without contending with a critical problem, too often left implicit: To respond, security efforts must imagine events that do not yet exist. Human security is therefore a speculative undertaking nevertheless bearing an enormous cultural and political force of imagination as much as it is a data-driven enterprise. And, often overlooked by scholars of security, but rarely so by political and cultural theorists, such enterprises rely upon knowledge production, imperatives, interests, and desires that emerge from cultural and political life.

The core of this dissertation stems from a simple assumption: That all politics, and especially politics devoted to human survival, are confronted by a common problem. More than adversarial states, rivaling factions, sleeper cells, or whatever else, politics of survival grapple with phenomena that, somewhat bizarrely, have no reality. Or, at least, have no reality *yet*.

This *not yet* is because the central problematic of whether or not humans survive the basic phenomena of security, the threads weaving the fabric of security endeavors, the events against which humans, states, and now, a planet, seek protection – none of these events have yet occurred. In other words, the central common thread of the politics of human survival share a lack of existing *yet*. This is what people mean when they write about the "politics of the future."[4] But politics of the future – that is, politics obsessive over future events – are politics in the present, organized by and organizing present states

[3] Posner 2004, 6.
[4] Anderson 2010a and 2010b; Aradau and Van Munster 2008; de Goede and Randalls 2009

of affairs. It is their motivators, their stimuli, which exist in the future, if they will come to pass at all. Death, that which at its most base level security seeks to forestall, will find its inevitable cause at some point for every living being, but not in the present for the living, not yet.

Certainly it cannot be said that this claim is itself innovative. After all, fearing what might come next is hardly a new concern. Epicurus once related this point to a younger thinker seeking advice on the philosophical life more than two millennia prior to our time:

> …death, the most frightening of bad things, is nothing to us; since when we exist, death is not yet present, and when death is present, then we do not exist. Therefore, it is relevant neither to the living nor to the dead, since it does not affect the former, and the latter do not exist. But the many sometimes flee death as the greatest of bad things and sometimes choose it as a relief from the bad things in life.[5]

Nothing could be more antithetical to Epicurus than the obsession over security in our contemporary political scene. He, writing above, insisted that to live fully one must recognize the irrelevance of death. Death lacks connection to ontological existence, or at least death operates to negate the life which, of course, the politics of security seek to prolong. In a sense the Epicurean fate, the Epicurean idea of finitude, is so caught up with contingency, so aleatory, that to perseverate on death really only forecloses on the possibility of a life well-lived. In the contemporary sense it can be clearly put: The Epicurean view of death is utterly devoid of politics. That's because contemporary politics are driven by security from a range of hazards unified under the banner of

[5] Epicurus, 2004, pg. 29.

disasters – and these disasters occupy a peculiar temporality, given their urgency to so many forms of political life and order.

The political differences from Epicurus's time to our own notwithstanding, the preoccupation with finitude persisted. It was a central concern of Blaise Pascal, whose mathematical prowess led him to create the archetype of modern game theory as he sought a convincing and logical solution to prove the fate of disbelievers in God.[6] Except at the core of Pascal's endeavor was not only the desire to solve the mysteries associated with failures to believe in the divine, but also to strike at the heart of a central problem of life at the time. How could human beings deploy reason in order to dispel the consequences of the unknown? How could people learn to navigate their temporal lives in order to prevent damnation eternal, however long in the future tense? In Christian theology, and this is a core assumption leading to Pascal's wager, temporal death is inevitable. Part of the legacy of Pascal's early rational choice model worked through the presumptive success of harnessing secular reason to vanquish uncertainty. This hope – the hope to deploy rational choice to inch closer to certainty – persisted through much of the successive centuries, becoming refined and more complex.

Pascal and many others sought to establish human reason as a means of navigating the torments of unpredicted futures.[7] This drive founded Cartesian skepticism, which in turn advocated for practical philosophies that could refashion human beings and their use of reason as the "masters and possessors of nature."[8] There was God, now there is catastrophe. Marking secular disaster as particularly modern in its construction –

[6] Pascal 1995
[7] Jordan 2006
[8] Descartes 1998, 35.

whether "natural" or moral in nature – few beyond insurance companies and evangelicals use the language of "acts of God" any longer, favoring instead scientific explanations positing, if not the capacity to meld understanding and action, than at least a more rational interface with the complexities of events. To turn to science for explanation of disaster involves a faith not only in science, but in modern humanism and its promise that through scientific knowledge, human beings can determine their own fate.

In other words, epistemological uncertainty and what it corresponds to – ontological indetermination – are hardly new. Already in the mid-18th century these themes were debated with reference to catastrophe. After Lisbon was decimated in 1755 Voltaire and Rousseau engaged in a heated debate about ontologies stemming from Liebnitz via Alexander Pope in what became a philosophically important debate about modernity, philosophy, and catastrophe.[9] At its core, the debate can be summarized as a set of questions about whether or not the earthquake-turned-tidal wave-turned-wildfire could be blamed on God-as-nature (Voltaire) or some version of civic-political failure (Rousseau).

Imperative about this debate, regardless of the philosophical causes of understanding the calamitous events of Lisbon, was a reorganization of the terms

[9] This transition from premodern superstition to modern secularism is noted by many (see Israel 2013 for a general discussion), but with reference to catastrophe the turning point is frequently cited in the debate between Voltaire (2005) and Rousseau (1997) regarding the Lisbon earthquake of 1755. Charles Walker (2008) invites readers to consider the colonial implications of a similar event nine years earlier in Peru. It is worth noting that even despite Walker's excellent book, Voltaire and Rousseau's debate concerning the perilous catastrophe of 1755 continues as the touchstone of Enlightenment transitions to secular thought in the realm of catastrophic events. On the connection between Voltaire and Rousseau on the Lisbon earthquake see Bauman 2009, Dynes 1999, Dupuy 2005, Meiner 2012, Neiman 2002, Regier 2010 to mention only a few good discussions.

considering catastrophe's role in organizing civic and political life. From that point on, catastrophe meant a terrible event with costs registered in terms of loss to a (politically demarcated) population. And the element of surprise intrinsic to it contributes a peculiarity that insists the cause of that death comes from the future. The way that it is fabricated in the project of securing against such future threats is a signature of the civilization that bespeaks it, what and whom they value, etc. While the Voltaire-Rousseau debate betrayed some elements of political consideration, it took another two centuries for catastrophe to be more fully politicized.

For many in the recently growing literature surrounding catastrophe, to think politics is to seek for the exercise of power. More often this pursuit of power involves locating an agent whose occupation or expertise permits such an exercise, at very least, in terms of setting the terms of urgency: *Either we act to protect ourselves, or disaster will strike!*[10] Some of the more incisive critics of the politics of catastrophe notice that such a statement occurs neither in a vacuum, nor innocent of political motives, so often imbued as they are by avaricious attempts for themselves to secure positionings of compulsory power.[11] As a result, when scholars focus on the politics of catastrophes – whether they are focused on security or other elements – they so frequently focus on the function of states when mounting their critical posture. In other words, political theorists and security scholars alike tend to tie the politics of catastrophes to the state, which narrows the scope of what contributes to the growing concern about catastrophic futures. And from a critical

[10] Vázquez-Arroyo 2013

[11] On political power and catastrophe, see for some context: Amoore 2013, Aradau 2014, de Goede 2012, Dillon 2008, Dupuy 2013, Vázquez-Arroyo 20012 & 2013, Walter 2008 On compulsory power, see Barnett and Duvall 2005.

perspective, they often tend to tie the state-based politics of catastrophe to empire in the broadest sense.

Much critical ink has been spilled arguing that empire, and specifically American empire after 9/11 involved a resurgence of the repressively bellicose regime that seemed quaint in the 1990s.[12] After all, certainly one way to understand the overwhelming success of Michael Hardt and Antonio Negri's *Empire*, even if interrupted by the newly foreign wars of the early twenty-first century, was because of the way that it ably diagnosed what so many had celebrated in the "peaceful" and "cosmopolitan" post-Cold War landscape of geopolitics.[13] Only a year after the publication of *Empire*, the United States launched a now nearly two decade-long foreign invasion (and another in 2003) that shifted scholarly attention from less militaristic elements of empire to the critique of imperialism in a more familiar tongue.[14]

Yet as the decade wore on, new institutional formations expressed shifting emphases in the way that a great empire conceived not only of military intervention and its causes, but also threat itself. When the US Department of Homeland Security was established in 2002, the rhetoric surrounding its establishment echoed with acknowledgements of changing times. Four of the seven "primary mission(s)" of the nascent department focused exclusively on terrorism. It is worth noting that another of the seven focuses on economic "security," another is procedural, and another – most

[12] For critiques, see Amin 2005; Noys 2010 (Ch4); Barkawi and Laffey 2002; Reid 2005; Lazarus 2006.
[13] Hardt and Negri 2000.
[14] Collier and Lakoff discuss this in passing at the end of their well-known 2008 essay.

critically for both the evolution of DHS, but also my argument – links DHS as a "focal point regarding natural and manmade crises and emergency planning."[15]

Within the first decade of its existence DHS had acknowledged to some degree the inevitability of catastrophe, and as a consequence awarded heightened priority to the coming catastrophe all and sundry. As U.S. security politics evolved *away* from terrorism, and toward "resilience" against "all-hazards," as the core idea of preparedness, the prominence of FEMA in the operational priorities of DHS was revealed. The point remains that among the enduring and growing foreign wars of the world's so-called only remaining superpower, internally the terms were shifting from the singular threat of foreign adversaries to a laundry list of issues that included not only "unconventional threats" like ununiformed military aggressors, but economic collapse, natural disasters, technological failures – the list only grows with our imagination.

In a landmark study, the conceptual historiography of Reinhart Koselleck grappled with the problem of foresight across scales, from individual prudence to broad scale political concern.[16] Key to his framework were the ways that knowledge of history informs our visions of the future, how historical knowledge illuminates possible prognoses of future events. At the core of his thesis was the complexity often missing from prognosis, viz. when the scope of possible futures is narrow enough – as is the case in our everyday decisions – prognosis functions simply, and the occasional failure usually

[15] U.S. Congress 2002.

[16] "Humans, as cosmopolitan beings, necessarily conduct their lives, simply to exist, by remaining future-oriented. In order to even act, one must take into account and plan for the empirical inexperience of the future. Whether it makes sense or not, one must foresee the future. It is with this paradox that we come to the core of our investigation and can pose the following questions" (Koselleck 2002, 133).

results in inconvenience and accident. Previous experience informs our decisions, but we often blur temporal scales when thinking more abstractly about the future, combining near-, mid-, and long-term futures.

As a result, even when scaled up to complex security decisions, when we can think simply, when we can focus on data that is discernable, our chances of prognosis improve drastically. But as the aleatory field of information increases, prognostic success decreases in inverse proportion:

> …the scope of future predictions ranges from absolutely certain prognoses to those that contain the highest level of improbability. Thus it must be considered absolutely certain that our earth could survive the catastrophe that would be brought about for the whole of humanity by an atomic war. Significantly more difficult to predict, however, is whether such a catastrophe would be caused by chance, by mistake, or on purpose, or whether it will turn out to be entirely prevented in the first place. That is to say, the further we distance ourselves from long-term data of what is naturally pregiven and concentrate our predictions on situations involving political decision making, the more difficult the art of prognosis becomes. The tentative light-ray of a searching prognosis oscillates between dependable and certain framework conditions and those that procedurally change and are comparatively uncertain in the field of political action. But in every case, prognostics draws its evidence from previous experience that is treated scientifically. To this extent, forecasting the future is an art of combining data from diverse experiences.[17]

Historical information will not always suffice. Further, when considering singular threats, considerations of future costs remain at least imaginable. But as the field of possible futures broadens, as well as the realm of actors diversifies, prognosis gains distance from everyday decisions. Data sets become less legible in their swelling magnitude. Imagination fills the cracks between discernable probabilities.[18] FEMA's strategy of "all-hazards" security expresses this reality. It may no longer be possible to prepare for the

[17] Koselleck 2002, 134.
[18] Aradau and Van Munster 2011

coming catastrophe because the coming catastrophe cannot be measured. Future catastrophe, in and of itself, in the way that it is organized by knowledge, exceeds prognosis not because the world is more complex, but because the concept itself has bloated beyond imaginable (and quantifiable) constraints.

Stephen Collier and Andrew Lakoff rightly understood the contemporaneous broadening field of security threats and attributed them to a changing common sense amongst political and security professionals. They sought to understand…

> …how this logic [of security] *became* common sense; how experts, politicians, pundits, and journalists learned to think and speak in a certain way about security problems; and how a diverse range of possible events – natural disasters, pandemic diseases, terrorist attacks – came to be seen as part of the same class of security threats and as manageable through the same set of techniques.[19]

In large part, their historicization of the tendency to all-hazards set the stage for much of what came after them in critical scholarship aiming to understand the ways that the principal and official security concerns of contemporary western governments had shifted from those of purely military concerns to an alarmingly broader list. But their writing focuses solely on security professionals, and on the ways that policy shifts accommodated and gave birth to such shifts. A welcome contribution, yet they really do not address their concern of "how this logic *became* common sense."[20] Put more sympathetically, Collier and Lakoff succeed in showing the ways that security policy shifted to ensconce a broader terrain of threats to human security – in short from national security to human security – but they in the end have little to say about the emergence of that "common sense."

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[19] Collier and Lakoff 2008, 10.
[20] ibid

This dissertation seeks to contribute what is so often claimed, yet so often overlooked: That over the past few decades, a rationality emerged that orients subjects to the question of omnipresent threats to life, and that the discursive register of that rationality blurs the lines between specific and conventional *kinds of threats* toward the idea of a *coming catastrophe*. I supplement the divergent critical literatures around shifts in security with a new reading of how they ought be organized, but also crucial differences in what preparedness, resilience, and other future-oriented modes of security thinking respond to. In response, I argue that they respond, not to material threats, but to an abstraction that emerges from many vantage points – exceeding the capacities of states and security experts, and inclusive of contemporary culture and political discourse – in a way that shapes and reshapes political life in the present. In short, I refer to this "common sense" as a political rationality for our times – under the banner of *catastrophism*, borrowed from the French for "doomsayer."[21] Catastrophism reorients political subjects to their own finitude through a litany of concerns stepping forward from nearly all angles, always inclined toward a threat from a future *not yet*, with consequences not yet known. But requiring unflinching critical attention uniting philosophies of knowledge and reality, political sciences of human security, and the politics of life in a time when we are told our lives stagger at the precipice of death at each and every single moment.

[21] This concept has a well-established tradition in recent French philosophy and is addressed exhaustively in Chapters 4 & 5 below. For now let it suffice that I mean to Anglicize the term, to draw it from its convention in French which permits an association with a streetcorner doomsayer, and shift its emphasis in English by capitalizing on its '-ism' which connotes a rationality or ideology.

Précis and Chapter Breakdown

This dissertation outlines the ways that conceptions of human security are organized by the threat of future disasters. Climate change, terrorist attack, genocide, contagious outbreak, economic collapse: each is uniquely and highly improbable in its own right. While the occurrence of such events already populate our present world, the presence of such events stimulates a different sort of action than what I focus on here. Disasters in the present already exist as states of affairs, and as such involve specific kinds of response. Yet *future* disasters – against which ideas about security find salience – produce speculative response. The not yet existing future catastrophe is complex and rendered generic by ideas and practices (which I outline in the first three chapters below) that contend with the ambiguity of the future; yet, despite its ambiguity, how incredibly dangerous it could be. More importantly, the effort to contend with future catastrophe tends to render differences between these events less important than efforts to prepare for whatever might come in the abstract. So taken together, we understand various kinds of future disasters as *the* coming catastrophe – whatever shape it takes, precisely – the altogether probable next catastrophe.

The dissertation does not challenge the urgency of protecting against coming events. Instead it asks about the social and political effects of human security when organized around anticipation. What does the prominence of "the coming catastrophe" instead of, say, the "Evil Empire," tell us about how we live now? What does it tell us about what we aim to secure? Where does strategy remain, and were might we find political life given over to an acceptance that to some extent the future can never be fully

enough imagined that we can evade its worst promises? These questions animate the project as a whole.

A significant literature has emerged that, in one instance, investigates how undetermined future disasters have become the organizing principle of expert security practices;[22] and in a second instance, interprets the experience and administration of contemporary political life in relation to claims of future threats.[23] In the former literature, social scientific writings on the subject focus more narrowly on the behavior of security experts; in the latter, a unidirectional exercise of power conditions features of democracy, intervention, and contemporary life. Part of the original work this dissertation undertakes presents this literature *as a literature*, when many parts of it do not engage one another for disciplinary reasons – most clearly because the former focuses on the activities of security professionals and the latter on the effects of political actors on the experience of lived experience.[24] I connect these critical literatures that mine expert practices of anticipatory security to these broader philosophic reflections on contemporary political life. And as a result I argue that inclusive of and beyond a particular model or phase of contemporary security, that the anticipation of catastrophic events engenders a central political and cultural rationality of our time.

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[22] This literature is organized by the writings of figures such as Anderson, Aradau and Van Munster, Cooper, De Goede, Ewald, Lakoff and Collier, and Massumi among others.

[23] These claims involve writings by Dupuy, Neyrat, Ophir, and Vázquez-Arroyo.

[24] This is not to say that none of whom I cite below engages the others, but that one recognizes a glaring lack of conversation between the social scientific endeavors to characterize the phenomenon of future catastrophe and more philosophical attempts to outline the effects on cultural and political life. Nevertheless, I maintain that, especially in the social scientific literature, a chasm exists between those whose focus is on strategizing prevention and those writing on resilience.

To be clear, the dissertation takes writing as empirical object – as a means to interpret the thinking it represents. Its central claims involve the relatively synonymous emergence of a discourse about the threat of future catastrophe. It is clear that the obsessions about future disaster can be most clearly found in writing as a form of reflection on knowledge and practice. I cull these reflections from an extraordinarily diverse group of sources – from government agencies, empirical studies performed by social scientists, philosophical reflections on current affairs, literary fiction, public intellectualism, and others. This dissertation does not, however, function as a review of relevant literature. It collects writing as evidence of a concurrent discourse, organizes these writings for the reader, and presents a new body of writing as evidence that a problem is present. Methodologically speaking, much of what occurs on its pages demonstrate the production of a narrative about contemporary thought that derives from thinkers concerned with a common phenomenon, though these thinkers are not always aware of one another, though sometimes of course they must be.

The dissertation as a consequence organizes writing that otherwise does not often interrelate and then, in turn, offers an interpretation of the product of its empirical work. The result being an argument that stems from contemporary thought, about contemporary thought, that is diagnostic of thought in the present. It is from this calculus that I feel confident making claims about contemporary rationality. The dissertation after all, to the extent that it is successful at all, is a reflection on a disparate but interpretable set of ideas unified by the concern for future catastrophe. In other words, the dissertation organizes an otherwise disorganized discourse into an object of interpretation. In Part One, the

interpretation focuses on efforts of political elites and their interpreters to account for threats that emerge from an undetermined future. In Part Two, I introduce theories attempting to supplement the work on political elites, toward a diagnosis of a broader thematic found in contemporary life in the United States: the preoccupation with future catastrophe and questions about human survival from beyond sectors of security expertise. The contribution of the dissertation, in the end, is to register the political and critical effects of that collective concern.

After drawing into critical dialogue a range of thinkers from the Cold War to the current moment, I reflect on other work that attempts to give meaningful voice to wide-ranging concerns about catastrophe – whether by security professionals or not – deploying useful terminology and concepts such as logics of "the catastrophization of political life"[25] or "modes of knowledge and styles of reasoning."[26] Yet such discussions do not explore thoroughly enough how the language and desire of political actors interfaces with a clear popular concern – one might even call it an eschatological concern – in which an emergent cultural production preoccupied with future disaster can be successfully outlined.

For this reason, it is important to supplement claims about future catastrophe that involve political elites with what I understand to be processes of cultural production. Thinkers like Vázquez-Arroyo and Aradau & Van Munster each in their own ways is preoccupied with an important component in rhetorics of disaster and security: Where the specter of insecurity, as Vázquez-Arroyo puts it, "authoriz(es) the expansion of

[25] Vázquez-Arroyo 2013, 745
[26] Aradau and Van Munster 2001, 2

unaccountable power" and depoliticizes populations.[27] While this is clearly an important political feature of any vision of political life obsessed with catastrophe, it is also the case that rather than depoliticizing populations, discourses about security are cultural – far exceeding official concerns – and therefore fully political in the ways that they guide contemporary rationality and beliefs about the potential for human survival.

I will insist below that discourses surrounding catastrophe are both political and cultural. Many of my interlocutors insist that discourses about catastrophe and security are political in a specific way: They assert that the manipulation of power by political elites, especially when deploying rhetoric of future disaster, tends to "depoliticize" populations.[28] What they mean, to be clear, is that especially in democracies, that elites threaten the welfare of the body politic with speculations about threats to their security. As a result, democratic societies face an intimidating warning and potent threat to the democratic ethos: "Let me protect you, or else catastrophe will strike!" For scholars like Vázquez-Arroyo, Adi Ophir, and Aradau & Van Munster this ultimatum reprioritizes security over democratic self-determination and democratic ideals of constraining autocratic and other forms of state power. The political threat of catastrophe and the promise of security by political elites is for them therefore fundamentally antidemocratic and depoliticizing (in its antidemocratic seizure of power).

I agree that surrendering liberty for security, especially out of fear for survival against speculative threats, is an important mechanism of contemporary political power. But work preexisting this dissertation already shows this effectively. Yet if we follow

[27] op cit, 745
[28] This claim is addressed repeatedly in following chapters

their arguments to their logical conclusions, several shortcomings emerge. First, while true that certain claims to security tend to support less than democratic modes of politics, that does not mean that political power ceases to function in political societies. Such claims tend against the presence of resistance, of activism, and other concurrent explicitly political modes of power. In short, claiming that securitizing language depoliticizes unnecessarily homogenizes our ideas about the heterogeneity of political power and obscures alternatives to autocracy that already exist in the world. In other words, it is too narrow to say that the process is "depoliticizing." It may be depoliticizing in the sense that it vitiates democratic ideals and weakens democratic participation. Yet even then, that diminishment would indicate to me more of a transformation in a political state of affairs then to, literally, depoliticize a political state of affairs. It would support arguments of a state of exception, perhaps, or the passage from a democratic form of politics to one more autocratic.

Most importantly to me, however, is that such claims gesture away from another mode of power entirely. When constraining notions of power to state actors and political elites, analyses overlook the power of cultural production. Taking power as already variously applied and exercised, as I do, and expressed in the process of knowledge production, understanding the problem of catastrophizing speech acts as depoliticizing overlooks the range of ways that power works not only to dominate, but also can animate discourses and meanings; accept or elide modes of inclusion and exclusion (both of peoples and their ideas); it can produce as well as destroy. In other words, the notion that seizing on a compulsory form of depoliticizing power overemphasizes both the power of

the state and a conceptual understanding of power as domination. In this dissertation, when I insist that discourses of catastrophe are "fully political," I mean by that statement that conversations about catastrophe have potent effects of animating discourses, orienting people to problematics, and ultimately shaping the experience of life in relation to such discourses.

Likewise, by "culture" I mean the production of meaning in a given society. I take the broadest definition of this word intentionally. In mobilizing culture as the collective production of meaning, I want to resist elitist demonstrations of the word, as in Matthew Arnold's famous 19th-century definition, "the best which has been thought and said in the world," which insisted that culture is "high culture," a rarified and selective grouping of artistic and intellectual achievement toward which others should aspire.[29] Instead I align more closely with the writings of Stuart Hall, who is not a central figure below, but remains as an inspiration. Against an elitist view of culture, I consider the production of meaning in a society to not only: 1) traversing analytic distinctions of "high" and "low" culture, but also importantly "elite" and "popular," which come to inform the ways that I understand catastrophe discourse to imbue a society with concern stemming both from political elites and citizens alike; 2) the production of culture needn't be homogenous. I refuse an understanding that cultural production in order to be meaningful, ought to be singly coherent. In an important way, in this dissertation I mean to suggest that a reader of its findings should recognize the varied intentions and motives, the separate ideologies and convictions, of the range of voices represented here. What unites them? A focus on a problem. This problem, I believe, stems from sources further than the concerns of

[29] Arnold 1993, pg. 190.

inhabitants of security institutions and, rather, percolates from a growing number of voices across political society.

By "rationality," I mean the assimilation and reproduction of meaning. In this sense I mean that a rationality associates meanings into a rationale, a more coherent way of sense-making. Such a definition implies the production of knowledge, but is not necessarily limited to explicit knowledge; it can also mean more simply the ways that knowledge appears reasonable. The process by which meaning becomes reasonable is not always explicit, and often operates in ways that orient subjects to certain questions over others. Moreover, when I insist that considerations of catastrophe across culture produce a rationality of catastrophism, I mean not only that the knowledge associated with future disaster comes to preoccupy thinking beings – which it no doubt does – I mean to insist also that it configures consequential byproducts as well. Put simply, rationality produces not only a certain kind of assimilated meaning, but also predispositions as well. I often refer to these predispositions as, in a sense, orienting subjects toward the questions of future catastrophe and human survival. Rationality creates limitations at the same time as creating opportunities. In this sense, my deployment of rationality explains the discursive skeleton of political dispositions and priorities, not an instrumental rationality so all encompassing that emplaces its subjects into an iron cage, streamlining them as means to ends economic or political in their devices. Instead, like my usage of the words culture and political, I want the word rationality to function in this dissertation as a functionary of how meaning is made, disseminated, and assimilated. With the end of that pursuit

being that political subjects react to terms of a political rationality because of its attendant problematics.

The dissertation is therefore at its core about how the concern about surviving future catastrophes has become widespread, naturalized as a cultural phenomenon that concerns both security professionals and everyday subjects alike, reorienting ideas as critical as life and survival toward a future that, quite literally, has no actual reality in the present. This orientation that prioritizes imagined dangerous futures over concrete issues in the present founds the political rationality that I seek to outline in the work.

In order to accomplish this broad project, I set out to elaborate two concepts. The first concept is "the coming catastrophe," which I show over the first three chapters became "normal." In this sense I mean that the notion of the "future catastrophe" emerges as an abstraction that stands in for a long list of potentially disastrous events, and as such the abstraction is an object of securing human life.[30]

The second concept focuses on the political rationalities that surround such a security concern, "catastrophism." Drawing together philosophical literatures conceptualizing "catastrophism" (Dupuy, Neyrat) and "catastrophization" (Ophir, Vázquez-Arroyo) that address how political imaginaries emerge (or should emerge) to respond to crises in the present, I suggest that theories addressing the politics of catastrophes excavate a political rationality that is still not yet sufficiently outlined. In response, I argue that catastrophism is especially useful for conceptualizing future-oriented politics because it helps us to analyze evermore pervasive instances of "enlightened doomsaying" from security practitioners to novelists, public intellectuals,

[30] Toscano 2008

and philosophers, because the concept articulates a sensibility, an orientation.[31] Again, this sensibility or orientation stands at the heart of what I mean when I invoke the concept of rationality. The final and concluding chapter then introduces a critique of the extensively persistent nature of catastrophism. Not only does catastrophism shift perspective from present crises to future calamities, making events that literally have not occurred take primacy, it preempts critique of structural processes that give rise to suffering in the present and which very well may cause the catastrophes of tomorrow.

The dissertation is divided into two parts, containing five substantive chapters. Each of the two parts develops a single concept. Part One (the first three chapters) organizes ideas about "the coming catastrophe" in order to show how future catastrophe became an event that we can expect, rather than the distinct catastrophic event remaining highly improbable. Part One first divides considerations about either prevention or resilience into legible modes of future-oriented security thinking, and then in Chapter Three attempts to conceptualize their overlaps in an effort to demonstrate the ways they became fused into a category of actionable knowledge. Part Two (chapters four and five) develops and critiques the concept of "catastrophism" as a form of contemporary rationality that moves beyond elite security thinking and admits other modes of knowledge production from outside the purview of state practices.

1. The Coming Catastrophe: Logics of Prevention

This chapter aims to both historicize and contextualize critical and theoretical approaches to thinking about future catastrophe through the particular lens of approaches to "uncertainty" as opposed to "indeterminacy" (Best, Dupuy) in critical theory and security

[31] Dupuy 2004 & 2005

studies. It organizes writings that pursue security logics about future catastrophe that stay their focus on strategies of preventing future disaster. Beginning from the latter stages of Cold War writing about the possibility of nuclear war, I trace the "fabulation" (Derrida) or necessarily future-oriented discourses of imagining nuclear annihilation across a range of literature focusing on the creative necessity to imagine the future in order to contextualize threats in the present. From this perspective I trace the emergence of an anticipatory discourse that has to be imagined in order to be treated critically (Derrida, Marcuse, Galison, Enzensberger).

I then turn to contemporary post-9/11 critical responses to securitization, precaution, and other reactions to terrorism developed in the U.S. security establishment to deal with "unknown unknowns" (Lakoff and Collier, Anderson, Aradau and van Munster, De Goede, Ewald, Massumi). But in the ensuing decade, I show how hurricanes, tsunamis, economic crises, and other massive disasters stretched the pursuit of certainty about future events to encompass larger and larger swaths of potentially lethal phenomena, blurring the singular nature of "the coming catastrophe" into a catchall watchword signifying a universal insecurity from the unknown, but also the not yet determined (Best, Dupuy), and thus require new vocabularies and approaches to securing against their non-singular nature.[32]

2. From (Pro)Action to Reaction to Acceptance: Logics of Resilience

The second chapter considers the way that the prospects of future catastrophes often are managed in the present through the lenses of resilience planning. I argue that where the preventative strategies outlined in Chapter One sought to *avoid* specific potential

[32] Corry 2012 and 2014

disasters, resilience *accepts* the inevitability of many potential disasters all at once. In sum, I argue that resilience marks a departure from strategy to acceptance; from (pro)action to reaction. This argument is especially important because it helps to show the pervasiveness of the practical response to "normal catastrophes" as argued in the next chapter. Resilience has become a keyword of contemporary global security governance, drawing from a range of other fields, exemplified by the U.N. report, *Resilient People, Resilient Planet: A future worth choosing* (2012) which argues for a global project of "sustainable development" that "eradicate(s) poverty," "combat(s) climate change," among other challenges while "building resilience through sound safety nets, disaster risk reduction, and adaptation planning."[33]

Resilience attempts to engineer measures of adaptability that take priority over the presumed stasis of risk thinking (Holling). Yet, as Walker and Cooper have shown in their landmark critical genealogy of resilience, the initial techniques of resilience were not only drawn from engineering and ecology, but also from neoliberal economic theory.[34] So one key critical approach to resilience policy has been to critique it from the perspective of neoliberalism and its attendant governmentality, and as such this line of thinking insists that resilience is a developed enough form of neoliberal governance that resistance to it has been subsumed or weakened substantially.[35] Yet some others have argued that the critique of neoliberal resilience overlooks a key element of contemporary liberalism and its relationship to resilience: "liberalism is aimed today not at solving or preventing the manifestation of dangers and threats to security, but at making us forego

[33] UNISDR 2015, 6
[34] Walker and Cooper 2011
[35] Neocleus 2012; Reid 2012; Joseph 2013

the very idea and possibility of security, through the embrace of the necessity of our exposure to dangers of all kinds as a means by which to live well."[36] I read therefore the sides of this dialogue surrounding neoliberal articulations of resilience against each other to establish an analytic argument suggesting that despite the critical potentials – for better or worse – that both sides of the debate allow us to see how resilience reconstructs a broad field of threats as not only singular (future catastrophe), but also inevitable enough to prepare for in the abstract. Hence, resilience enables a reaction to the abstract concept of future catastrophe, rather than an action against a strategic threat, and therefore transforming a risk-averse politics into one of embrace; into one that "has seemingly embraced the Nietzschean imperative to 'live dangerously'" by relenting to the possibility of what I call in the next chapter, "normal catastrophes."[37]

3. Normal Catastrophes: Security Against All Hazards

Chapter Three outlines the practical genesis of the coming catastrophe through the ways it was normalized. Focusing again on its roots in the Cold War, but then the ways that "Civil Defense" migrated from nuclear war to a larger range of disaster categories, I show how the disruptive and unusual category of catastrophe became normalized. The chapter traces both an empirical historical process in the U.S. through established accounts, and simultaneously theorizes the emergence of its consequences as a central political logic in a late-modern context. It contributes to the dissertation a passage from the more abstract ontological language of "the coming catastrophe" to the idea that catastrophe has been abstracted as a reified object of concern about human security.

[36] Evans and Reid 2014, 2
[37] The Nietzschean citation is also found in Evans and Reid 2014, 2.

From Mutual Assured Destruction and empirical reflections on aerial bombing, to the creation of FEMA and all-hazards security, the chapter traces a conceptual history of future catastrophe as an abstraction. If chapters one and two reveal the limitations of prevention and resilience, this chapter shows how the broader interest in future disasters demonstrates overlap between them, thus normalizing the threat of future catastrophe. In the chapter I argue that the concept of catastrophe is a powerful abstraction that motivates a suite of security efforts. In this regard the chapter consequently traces the securitization of FEMA's all-hazards approach through its incorporation into the Department of Homeland Security (DHS) in 2003.[38] As a result the chapter shows how, through its expansive efforts to govern contingency as a security problematic, that DHS normalized a wide range of highly improbable events into the altogether probable event of catastrophe—abstract catastrophe, normal catastrophes. My aim is also to show the emergence of a particular technique involving how threat is conceived, and how security is produced as an anticipatory logic.

4. Catastrophism I: An anticipatory security *dispositif*

Marking a shift from matters of security to matters of political rationality, Part Two asks consequently why the preceding chapters seem to make such sense – literally, why the fear of an abstract event should cause concern. While a critical stance is possible toward the production of catastrophe as a defining abstraction of contemporary political concern, the increasing frequency of large-scale disastrous emergencies also demand attention if humans will survive late modernity itself.

[38] Collier and Lakoff 2006

Chapter four focuses on the ways that political rationality is produced across diverse modes of knowledge creation. Considering the ongoing tumult taking place in the Occupied Territories of Palestine, Adi Ophir rendered a complex concept of "catastrophization." For Ophir, this concept both outlines the ways that a vast interaction between state governance and NGOs continues to push the Palestinians to the brink of disaster and simultaneously to rescue them from perishing, the active component of the concept explains the transformation of daily life into one of ongoing catastrophe. Yet his concept reaches further in an attempt to describe the advent of a governmentality that gives the ongoing catastrophe life, as Vázquez-Arroyo puts it, both as "an *objective* reality and a *discursive* process."[39]

In other words, Ophir's concept of catastrophization produces an understanding where in actual policy, catastrophe is both produced and mitigated; but in this process, so are ways of thinking about political order in the very political landscape that it produces. Sympathetically critiquing Ophir's deployment, Vázquez-Arroyo introduces the notion of the "catastrophization of political life," in which as he puts it:

> …the rhetoric of catastrophe, its menacing shadows, is deployed to depoliticize populations, as well as to legitimize catastrophic situations that are already under way. This, in order to establish a threshold in which state power is not only exercised but regularized, and normalized, in fundamentally undemocratic ways.[40]

This conception outlined by Vázquez-Arroyo follows another element of the catastrophization of political life that he leaves to the side in pursuit of what I quoted immediately above. In this passage that I have quoted, the "rhetoric of catastrophe" carries with it an air of intentionality where the rhetoric's deployment permits the

[39] Vázquez-Arroyo 2013, 744
[40] ibid 745

undemocratic exercise of state power. This is certainly empirically the case, often enough, but by his own admission Vázquez-Arroyo abandons another process in which catastrophe enters the fray: The way that discourses of catastrophe "connote an increasing awareness of vulnerability to forms of power, the pervasiveness of superfluous suffering and destruction, and the need to be politically alert to these, in order to mitigate or avert catastrophes…"[41] Here Vázquez-Arroyo hedges much more closely to the presentation of the effects of discourses of catastrophe that I endorse, but I argue that 1) he overlooks the broader concern about catastrophe because he follows Ophir too closely; and, more importantly, 2) in arguing that the process of catastrophization of political life that he insists upon is effectively a device intended to "authorize the expansion of unaccountable power" with a form of rhetoric "deployed to depoliticize populations," he mistakes the exercise of authority as politics for what he refers to as "political life."[42]

In so doing, Vázquez-Arroyo mainly addresses the way that certain rhetorics bolster the abuse of antidemocratic power. I argue that, when seen as a broader concern – a preoccupation with the future-oriented abstraction of catastrophe – that we can see to the contrary that a discourse of catastrophe works in ways far from depoliticizing populations. Instead we can see a re-politicization – a re-orientation – of political life to a broad concern about security *in general*. This inspires this chapter's discussion of the emergence of a political rationality of which I make sense by way of Foucault's concept of the *dispositif* and a discussion of seemingly unlike writings sharing a common concern for human survival which all take *imagination* as their core narrative device.

[41] ibid
[42] ibid

Analyzing literary narrative (Atwood's *Oryx and Crake*), ethical philosophy (Mulgan's *Ethics for a Broken World*), public intellectualism's appeals for resilient security practices (Flynn's *The Edge of Disaster*), and a formerly secret DHS program that incorporates novelists and screenwriters into contingency planning, I bridge similarities across seemingly unrelated modes of writing to show the common fear of pending existential finitude as a mobilization of catastrophe for, at very least, rhetorical purposes. The reading also draws their work into conversation with Foucault's notion of the *dispositif* – an assemblage of wide-ranging practices and forms of knowledge production unified by a common, and forceful, political rationality. Chapter four aims above all else to substantiate the following claim: What catastrophe truly stands for is an expression of contemporary political rationality. So, chapter four conceptualizes how an *anticipatory dispositif* organized around catastrophic concern catalyzes action across disciplines and institutions, shows how we can understand contemporary rationality as organized by future-oriented logics, logics that re-imagine human finitude in response to those very fabrications.

5. Catastrophism II: Elaboration and Critique

Building on the previous chapter, this chapter extends our understanding of catastrophism. Showing its conceptual affinities and points of divergence with its usage in the natural sciences, I suggest that catastrophism is a political rationality deeply engrained in modern thought, as well as germane to problems of modern governance. Beyond its conceptual usage in planetary sciences, I interpret two important contemporary thinkers who have written provocatively on the concept of catastrophism in French. After briefly discussing the liberalism of Ulrich Beck in his thin deployment of

the term, I turn to Jean-Pierre Dupuy, who advocates for an "enlightened catastrophism" which results from a paradox intrinsic to humanism itself. As an answer to that paradox, Dupuy insists that a "new metaphysics" is necessary that will help deploy an important political "ruse" which could reposition human beings in ways that might inform their efforts to resist a catastrophic destiny. I then turn to Frédéric Neyrat, whose vision of catastrophism results from an incisive reassessment of biopolitics in an age of catastrophes. Showing the limits of the biopolitical paradigm helps to show how my assessment of catastrophism in the previous chapter responds to fissures in modern governance given to security. The chapter ultimately concludes by bridging these discussions with a discussion of why these assessments also portend a foreclosure on critical thinking in a catastrophic age.

Living with Catastrophism

The writing that follows from here traces an emergence – a coming into being – of a way of thinking. Tracing this emergence is why so much of the project is devoted to accounting for the arguments of others. As the arguments of the dissertation unfold, I trace the contours of how a diverse field inside and outside the academy and across concerns and disciplines, inaugurated a way of thinking that commands new ways of thinking about human security, and in fact even produced new objects of consideration. Such a way of thinking, a way of thinking already emergent at the beginning of the Cold War, and coming to full fruition by the 1970s in its usefulness beyond military strategy, produced a future-oriented range of existential threats facing the U.S. and the West. In

other words, the rise of risk management, and its supplementation with theories of resilience – as well as the ways that both have been challenged because of their potential impacts in the future – mark an important signpost for political action. All such actions are informed by anticipatory thought, crystallized in diverse practices and institutional formations, and fully realized as the principal *raison d'être* of a new security paradigm.

Further, the logic of the dispositif means that the capacity to generate knowledge that informs action (and likewise actions that inform knowledge) exceeds a closed institutional framework. The threat of the looming catastrophe is a constant reminder. It is an organizing principle, an affect, a ubiquitous trope. In other words, while the rest of this project is devoted to the relatively closed world of security policy and analytics, the dispositif produces discernable modes of thinking and action corresponding to a culturally produced field of knowledge. In this case, it is knowledge about potential stakes of future events. And it is important that the events are as yet undetermined because, such as it is, the undetermined future becomes the productive potential for the dispositif's reproduction.

The French have a word for this thinking, whether it's the name of a broad political rationality, or simply a doomsayer, the word is *le catastrophisme*. A person, then who embodies such a rationality is a "catastrophist." Catastrophism, in the sense that I deploy the term here, is more than simple doomsaying, more than simple quivering at assumptions about the coming end. Frédéric Neyrat calls it, "legitimate madness."[43] In a

[43] "Legitimate madness. Catastrophe is the disastrous disruption of order, that overwhelms the supposed course of normal existence, the natural bed of a river or artificial dams, carrying with it the instituted order, habits and habitations, a way of life, of illusions… A major accident that overthrows the course of things, catastrophe renders space uninhabitable. But

word, it is more than dystopian futurism; more than certainty that the end is nigh; it is more than futurism at all. In fact, catastrophism lacks usefulness when attached to its orientation to the future. Of course, this is not to say that catastrophism has no connection to future events – it does – nor is it to say that there isn't a possible connection to annihilation for the catastrophist – there could be. It is rather to say that what makes catastrophism special when thinking about either the politics of security, or cultures of everyday life, is that catastrophism marks an awareness about a specific kind of danger – and one that is shared by a spectrum of political subjects – that can tell us quite a bit about the way we think now. This dissertation suggests that a theme about survival suffuses political society, and is not limited to professionals whose careers are devoted to such questions. Instead, we should understand that a major question about living in the present is what it means to be threatened with catastrophic peril at any moment.

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only for a time. In the worst scenarios of science fiction, the survivors adapt and rebuild, becoming as rational as Mad Max to compensate for the lack of energy and the absence of peace. Otherwise it is the final catastrophe, the cataclysm essentially irreparable, no more and no less than the end of the world. The catastrophe stands effectively between the accident – etymologically "what happens", that which supplements the ordinary without shattering historical continuity – and the apocalypse as the last discontinuity" (my translation, Neyrat 2008: 35).

1

The Coming Catastrophe: Uncertain Logics of Prevention

I. Introduction

Critical attention paid to events described as disasters, apocalyptic scenarios, and catastrophes focus primarily on the element of uncertainty about possible future events for which we have little or no warning.[1] So much so that the attention relating uncertainty and the many institutional projects involved in warding off future calamity "in an uncertain world" link in nearly indelible ways the investment in human security with the struggle against uncertainty about the future. But to resign events bearing the highest-impact imaginable to uncertainty is to subordinate events (or at least efforts to contain them) to the epistemological — "If only we had adequate knowledge…" — a mistake, perhaps, or maybe more specifically, too narrow a conception when we are confronted by future events which by definition have not only not yet occurred, but have not yet been

[1] The motif of uncertainty is common in the critical security studies literature, among others, that make efforts to analyze configurations of security practices with respect to future events. This is only a cursory, but highly representative list of some of the central, most well-known texts, each of which is engaged in this chapter: Aradau and Van Munster 2007, 2008, 2011; Aradau, Lobo-Guerrero, Van Munster 2008; Adey and Anderson 2011 and 2012; Amoore 2008 and 2013; Best 2008; Collier 2008; de Goede 2008 and 2012; de Goede and Randalls 2009; Dillon 2007 and 2008; Ewald 2002; Lakoff 2006, 2007, and 2008; Stevenson 2008; Posner 2004.

determined, a fact which at very least hints also at the question of the ontological as well.[2]

Emblematic of the privilege uncertainty receives, consider Claudia Aradau and Rens Van Munster in the opening pages of their *Politics of Catastrophe*:

> In the domain of security…many experts have associated the emergence of catastrophe as a peculiar and challenging object of governance with the introduction of nuclear weapons after World War II or with recent suspicions of terrorist or so-called rogue actors – states or otherwise – getting access to nuclear materials in the post-Cold War or post-9/11 era. Most of the arguments tend to emphasize the particularity of catastrophes as types of events that remain shrouded in uncertainty, confound expectation and challenge the predictive, preventive and protective knowledge of security experts. They are seen as 'rare, if not unique, and as striking rarely and without warning' (Clarke 2005: 6). They are unexpected and unknown both in their scope and their singular actualization.[3]

Aradau and Van Munster encapsulate several important trends in thinking about future catastrophes in this brief introductory passage. First, they associate the "domain of security" with expert knowledge, especially "security experts" and in so doing they narrow their pursuit to elites whose concerns involve security provision, and far from the fuller range of intellectualism and criticism. Second, they locate the "emergence of catastrophe as a peculiar and challenging object of governance" in the invention of nuclear weapons, tying that particular technological birth to the post-9/11 era of counterterrorism by virtue of nuclear arms. Third, and most central to the work of this chapter, they cast these claims under the guise of knowledge and reason. Conceptualizing such emergences (of catastrophe and nuclear war) by casting them in light of how they "confound expectation," how they are "unexpected and unknown," to the extent that they

[2] Here I have in mind the experimental work of Herman Kahn, but as I will show later, Dupuy (2004 and 2005) is especially relevant to this line of thinking. On Kahn studies, Ghamari-Tabrizi, S. 2000 and 2005; Stevenson 2008.
[3] Aradau and Van Munster 2011, 1.

"remain shrouded in uncertainty" exposes the way that knowledge and reason emphasize the subject matter of future catastrophes, especially when it comes to logics of security and their discourses.

In this chapter I do not argue that uncertainty is not a key feature partly embodying future catastrophes. Nor do I argue that uncertainty does not preoccupy concerns about future catastrophes. What I will argue however is that uncertainty dominates discourses about future catastrophes to the extent that it overshadows the ontological element of indetermination that composes both the future and its potential for catastrophic events.[4]

The stakes of epistemological dominance are several. First, it tends to bolster interest in those methods that claim to reduce uncertainty, which results in reduced interest in the processes of invention and imagination that are deployed when faced with indetermination. Second, the emphasis on uncertainty recruits discussions focuses on too narrowly on expert knowledge and efforts to produce a growing body of knowledge adequate to the range of possible futures. Third, emphasizing the "unknown" (or even frequently the "unknown unknowns") privileges the epistemological over the ontological, obscuring the cause for knowledge about future catastrophe in the first instance.

As I proceed I therefore address the concern with future events, the critical preoccupation with the dangers that such events pose, and begin to develop a concept of "the coming catastrophe" as a productive concept for this literature. The productivity of discourses of uncertainty reflect an intrinsic problem of limited knowledge, which is an epistemological problem, in the face of causal indetermination, which is an ontological

[4] In making this argument, I draw heavily on Derrida and Dupuy.

problem.[5] I thus shift the emphasis from what we can anticipate or speculate about the future, to the materialist problem of the future itself: that it is not yet determined. After all, if the question of survival can be articulated in terms of what may come, then the question is fundamentally ontological and temporal before human knowledge confronts that reality.

As such, this reformulation opens the possibility of recasting the conceptual relationship between future events and political security. Rather than presenting the epistemological problem of futures which may cause insecurity, a standpoint from which one can only advance a thesis that we ought to develop more mastery over the (necessarily) unknown, stressing an ontological approach on the other hand attempts to explain both the changing relationship of institutions of security governance to indeterminate causal mechanisms, as well their effects in the formation and management of knowledge and power in the present. Moreover I want this chapter to insist that recalling the ontological stakes of future-oriented security will tell us more about the shortcomings of knowledge. In short, there is something about shortcomings of knowledge (intrinsic to the "future-oriented" and most evident in "uncertainty") that incentivize projects of knowledge production, which seems to redouble as a widespread concern. More than simply conceptual, this argument will support what I will in later chapters pursue as a "rationality," or what others have likewise productively called a "logic" or "styles of reasoning" surrounding anticipating catastrophes.[6]

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[5] Dupuy 2009, 1.

[6] Vázquez-Arroyo 2013, 750-55; Aradau and Van Munster 2011, 31-33. These authors and many others frequently also utilize the language of "rationality," as is common in social

To write a comprehensive conceptual history of uncertainty is well beyond the scope of this project, but it is also quite different from its aim.[7] Below I assemble texts from the past half-century that analyze "the coming catastrophe" by emphasizing uncertainty. In short, these texts show a tendency to cross over, in a manner of speaking, from the fundamental ontological issue of an indeterminate future, and to stress an epistemological question rather than the more obvious ontological one: the question, "how do we cope with indeterminacy" becomes, so often, "how do we deal with our incapacity to *know* what will come next."[8] This may seem at this point a small matter of difference. To stress the lack of knowledge about what might occur surprisingly may seem little different than stressing that indetermination produces uncertainty. But by the end of this chapter I hope to have widened that crack in a way that sheds light simultaneously on the questions of indetermination and uncertainty when we consider "the coming catastrophe," but also to have advanced our understanding of how each of those positions might cause us to understand what a future catastrophe is, in and of itself. Not to mention that such understandings may lead to striking differences in how the future catastrophe is imagined, planned for, and so on.

The roots of concern for uncertainty with reference to future catastrophe are not new. Today's apocalyptic concern for the abstraction, "catastrophe," has very concrete

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scientific writing about power and social organization, which I adapt and differentiate as necessary when the conversation focuses on this discussion in Chapter 4.

[7] Histories of uncertainty and attempts to cope with it abound. One particularly pertinent (and accessible) introduction is Bernstein 1996.

[8] Anderson 2010b is an excellent text on this subject, as is Best 2008, and de Goede & Randalls 2009.

conceptual critical roots in Cold War thought as well as important departures from it.[9] Wanting to reign in somewhat the scope of that concern, and in keeping with the aims of the rest of the dissertation, I focus here on critical thinkers from the late 1970s and onward. This periodization will become more clearly important in Chapter Three when I outline the shift from what I will call "particular catastrophes" to "normal catastrophes;" the latter signifying the outgrowth from imagining particular kinds of future disasters to imagining "catastrophe" as such, as a catchall for the abstract future event that must be secured against. But for now, it will have to suffice to mention that from the period followed here there is a conceptual history which will be retraced, at least in its zeitgeist when I return to these issues and examine them from the standpoint of institutional responses later. At that point, I emphasize a history of responding to the threat of future catastrophes that emerges from institutional practice, but also show how such a concept loops back on itself to underwrite such institutions, rendering the concept of "the coming catastrophe" something that at once requires attendant institutions, and at the very same time is discursively developed by those institutions. Hence catastrophes as normalized phenomena, everywhere and always possible: normal catastrophes.

But that discussion takes place elsewhere in detail. Here my aim is to found the later stages of the project in a conceptual discussion of catastrophe as it is viewed critically and conceptually. One main part of this chapter's thrust regards the genealogical roots of contemporary critical dispositions to catastrophe. Taking its contemporary roots from the well-developed critical work taking place during the latter

[9] Aradau and Van Munster 2011, 17; Collier and Lakoff 2008; Galison 2001; Stevenson 2008.

stages of Cold War thought, one can extrapolate that the particular threat – and one might acknowledge the potentially more calamitous threat – of nuclear doomsday scenarios downplayed somewhat the indeterminacy now in place when we discuss catastrophic futures.

During the Cold War, the constant possibility of species- (if not planet-) ending nuclear war may have in fact loomed more severe than the contemporary view.[10] Then, the threat of nuclear annihilation was mostly singular, and realized as a technology of human invention. It hailed from a singular confrontation, from a singular source, and from a singular (and hopefully avoidable) antagonism. There were of course other disasters, some of which were catastrophic,[11] but the vision of a catastrophe in the most severe and urgent sense imaginable always referred back to the conceptual space opened by the new possibility of nuclear annihilation, a possibility only extant since 1949.[12]

Today, in a very different sense, the notion of catastrophe no longer appertains solely to the (still very real) possibility of nuclear extinction. Its contemporary sense ranges. It subsumes the possibility of dramatic cataclysm resulting from climatological instability, and the ever-present reality of plagues and scourges made worse by intensely interlinked trade and transportation networks.[13] Increasingly uneven distributions of wealth threaten evermore-vulnerable populations with catastrophic futures of starvation and poverty, not to mention potentially more vulnerable to colonization and tyranny.

[10] de Goede and Randalls rightly note that such large-scale threats still endure and refer to these as "total threats" in de Goede and Randalls 2009.
[11] Take for example the large literature on AIDS. See Johnson and Hopkins (1990) for a particularly poignant call for policy action based on anticipatory findings.
[12] 1949 was the first detonation of the Soviet bomb. The U.S. had quite obviously developed nuclear capacities years earlier. See Stevenson 2008; Rhodes 2012, 767; Kaplan 1983.
[13] Clarke 2001 and 2005; Flynn 2004 and 2007; Garcia 2005; Hanson 2009; Palmer 2010.

Terrorism, asymmetric warfare, and the potential for Great Power conflict continue to threaten human casualties of unspoken proportions as urgently as perhaps ever.

Unlike the singularly perceived source of cataclysm during the latter half of the 20th century, to evoke a future catastrophe today is to speak in one breath of many sorts of cataclysmic futures. Likewise, today's most serious thinkers view this important shift to a more inclusive vision of catastrophe – if one can phrase it this way – as a problem that faces intellectuals and policy makers alike with a problem of inadequate knowledge. "If only we could know what lay ahead, we might prepare properly," the logic goes. Such emphasis on the epistemological has its advantages and has gained more attention since the Bush presidency made famous both the Cheney Doctrine (also known as, The One Percent Doctrine),[14] as well as the real threats emerging from Rumsfeld's quasi-poetic "unknown unknowns."[15] Hence my argument that the popularity of conceiving future catastrophes as emphasized by languages rooted in "uncertainty" can fall short of understanding the force of the *what* that is involved in such phenomena as "unknown unknowns," to capitalize on that popular phrase.

What is lost is the ontological indeterminacy of future events and the very real, but as yet undetermined possibility of future catastrophe as a material process in many ways beyond the grasp of human politics, or at very least the institutions of security that aim to respond to foreseeable events. This argument is not intended to obliterate the importance of knowledge, nor to downplay the significance of uncertainty in the politics of catastrophe. Instead, ontological indeterminacy adds nuance to our understanding of

[14] See Suskind 2007. The one percent doctrine shares important with the precautionary principle, which is much more important in European discourses than in official U.S. policy.
[15] See Aradau and Van Munster 2011, esp. 6-7. See also, Žižek, 2006.

the politics of imagining future events that by their very definition do not yet have their own reality, and may never come to be; and so, indirectly, not only refocuses on the ontological but, in so doing, reorients the epistemological to "the coming catastrophe" at the same time. The argument will therefore contribute a concept of catastrophe that emphasizes its intrinsic lack of objective reality in the present, something that will become all the more important in later chapters that discuss the politics of imagining "the coming catastrophe" inside institutions of security provision and beyond, animating a principal element of contemporary rationality refocusing politics at every turn.

II. Uncertainty and Indetermination

At root of this chapter's aim is a conceptual wedge outlined by Jean-Pierre Dupuy involving the dual sense of the German word *Unbestimmtheit*, famously translated into English as "uncertainty" as part of Heisenberg's groundbreaking thesis in particle physics.[16] Yet in German it means simultaneously, "undetermined" or "indeterminate." Dupuy notes the difference as a preface to his important essay that I will address in the last section of this chapter. As in Dupuy's essay which helps to form part of the conceptual foundation of how I think of catastrophe here, the aim of the present chapter is to emphasize "indeterminacy" at very least as it is obscured by the more widely studied problem of "uncertainty," and the conceptual dividends paid to that end.[17] With reference

[16] Dupuy 2009, 1; Heisenberg 1930, §3.

[17] My work differs substantially from Dupuy's extensive writing on catastrophe and philosophy. Here in this chapter the reader will see our affinities, how much we align in our agreement that an ontological view of catastrophe is necessary to understanding its political force, and the importance of asserting indeterminacy in at least equal view with uncertainty. But our differences, which occur on the level of politics and critique, will only be fully

to *Unbestimmtheit*, Dupuy draws the two senses of the concept apart in a way that will prove useful for my purposes here:

> The German word "bestimmt" is fundamentally underdetermined. It can mean "festgelegt," that is, "determined," "resolute"; or it can mean "gewiß," "certain," "sure"; or it can mean "genau," "precise," "specified," "explicit." When Werner Heisenberg chose to call his famous principle the "*Unbestimmtheitsrelation*," it was a stroke of genius: thanks to the indeterminacy of the German terminology, he did not have to choose which interpretation of quantum physics was better: uncertainty or indeterminacy. The difference is essential, however: uncertainty refers to the *epistemic* domain, that is, our knowledge about the system under observation, whereas indeterminacy refers to the *ontological* domain, that is, things as they are. In French and in English, we are not so lucky and we do have to choose.[18]

In one sense, this distinction evoking Heisenberg seems to force a choice between approaching phenomena from the standpoint of the epistemic or the ontological. That forced choice may be reflected in how Dupuy characterizes the double valences of *Unbestimmtheitsrelation* in Heisenberg's formulation as "genius." But rather than cast the name under the veil of tactical genius, as if Heisenberg's aim was to obscure, it is more useful to think *Unbestimmtheitsrelation*, with its own conceptual indetermination as an accidental opening wherein the concept carries with it both the sense of uncertainty and indetermination. In the principle of particle physics, as in the way that *Unbestimmtheitsrelation* sheds light, as we will see, on the issue of future catastrophe, there is an inalienable link between the ontological phenomenon which has not yet occurred and the human incapacity to know what might occur from indeterminacy. *Unbestimmtheitsrelation* allows us to see in the same vein how each feature may express different features of the same problem. In other words, it would seem that for the political

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revealed in the extensive discussions in final chapter below, when I develop a partial though affirmative critique of the concept of catastrophism.

[18] Dupuy 2009, 1. Italics appear in original.

study of future catastrophe we must choose either the ontological or the epistemological, not least because securing against potential future catastrophes seems to rely on imagining them in the first place.[19] The more nuanced view of the related phenomena of future catastrophe and security regimes seems to draw out the subtle relation with series of events that are not yet determined and the human impulse to produce knowledge about them anyway. The epistemological referent of "uncertainty" places inquiries under a different light of scrutiny than the ontologically emphasized "undetermined." *Unbestimmtheitsrelation* illustrates a conceptual flexibility that I want to inject into catastrophe. The concept shows the duplicative nature of imagining future catastrophe. "The coming catastrophe," to the extent that it may happen, will register itself ontologically.[20] But the political response is nevertheless registered as an epistemic problem, showing strange openings in the relationship between thinking and the material when it comes to anticipatory security.

III. Uncertainties About Nuclear Annihilation

To evoke the catastrophe in 2018 is to in part evoke a different phenomenon than during the Cold War.[21] Today, the concept of the catastrophe tends toward the all-encompassing possibility for wide-scale disaster.[22] The possibility for massive cataclysm, even total annihilation, resided in a singular possibility before the end of the Cold War.[23]

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[19] Dupuy and Grinbaum 2005, 464.
[20] This element of the argument will become clearer as I elaborate the emphasis placed on the importance of thinking the unthinkable, and conquering uncertainty below.
[21] Aradau and Van Munster 2011, 17-19.
[22] Kindervater 2017.
[23] See Anderson 2010, 777.

Derrida characterized the problem of nuclear war as "fabulously textual," where, more than any other sort of weapon, nuclear arsenals relied on codes, structures of language, command relations.[24] One should not overlook the choice of the word "fabulously (*fabuleusement*)," which lends an air of exaggeration, but also in its very roots points to fabulation, or the Latin *fabulosus*, "the celebration of fable."[25] The language of "fabulously textual," in this sense, occupies two senses. It impresses upon the reader an amplified textuality, and also a fictive presence in which nuclear war would be the opposite of, say, the merely textual. Instead it is fabulously textual: reliant on its text for both its reality and its capacity to be imagined, to be produced, fabulated.[26] Following Derrida's formulation, "the phenomenon [of nuclear war] remains fabulously textual also to the extent that, for the moment, a nuclear war has not taken place: one can only talk and write about it."[27] The non-historicity of nuclear war—i.e. that a nuclear war had never occurred—threw the threat of total human annihilation, and in fact the threat of any and all of its effects, into a realm of inquiry in which to think nuclear war was, in the most perverse sense, to dream.

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[24] This is mentioned in passing in Aradau and Van Munster 2011, pg. 18.

[25] See OED. Derrida's original French *fabuleusement textuel*, carries thus both meanings in everyday parlance of the extraordinary and the chimerical (Derrida 1987, 369). On fabulation and fiction, see Scholes 1967, 1979 and 1975.

[26] There is an interesting connection between this move and the way that Aradau and Van Munster characterize Carlo Ginzburg in which they note that conjectural reasoning as they import it through Ginzburg proceeds through "a model of reality as double: some trivial details from reality, invisible to all but to the eyes of specialists, offer access to a hidden reality underneath." While not a trivial connection, the two points of view vary importantly, not least because for Derrida his notion is about fabricating a sense of reality through one that necessarily does not exist and is, in fact, a danger to existence itself. Where Ginzburg's is more a methodological concern that allows for a spectacular deductive moment of knowledge production. Aradau and Van Munster 2011, pg. 32.

[27] Derrida 1984, 23.

It was to fantasize annihilation practically, to enfold human civilization into a process where in order to avert nuclear war, nuclear war had first to be imagined.[28] A hypothesis had to emerge as to what such a war might look like, what and how it ought to be waged, and at what cost.[29] Surrounding the prospect of nuclear war were discourses of events that may at any moment occur, but by definition hadn't yet; and, for that matter, had never happened in the past.[30] This feature separated the prospect of nuclear war from all previous wars, which from Hans Morgenthau to Jacques Derrida had been theorized as sharing such similar features that conventional warfare was known as an historical constant. Nuclear war threatened a departure and required hypotheses:

> …the hypothesis of a total nuclear war, which as a hypothesis, or, if you prefer, as a fantasy, or phantasm, conditions every discourse and all strategies. Unlike the other wars, which have all been preceded by wars of more or less the same type in human memory (and gunpowder did not mark a radical break in this respect), nuclear war had no precedent. It has never occurred, itself; it is a non-event. The growing multiplication of the discourse – indeed, of the literature – on this subject

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[28] The quintessential works on this conceptual formulation are by the strategist Herman Kahn. See esp. Kahn 1962a, 1985, but also 1960, and 1962b. For historical renderings of their effects, see also Ghamari-Tabrizi 2000 and 2005; and Stevenson 2008; Kaplan 1983.

[29] Aradau and Van Munster make a point of this feature of novelty in the threat that nuclear war posed to security, and its attendant experts: "…uncertainty had been key to understandings of security dilemmas (see Glaser 1997, Roe 1999, Cerny 2000, Booth and Wheeler 2007) and did not enter security studies with post-Cold War debates about risk and uncertainty… Bernard Brodie, another RAND scholar and a founding father of strategic studies, argued that nuclear weapons 'have transformed all recognition with the past,' the 'change being so unprecedented that historical comparisons fail us almost completely'" (Aradau and Van Munster 2011, 18.) Aradau and Van Munster, too, connect this new form of uncertainty, its break with a history of warfare, and imagination with Derrida's essay that I discuss here. But their account merely points to an affinity where Derrida "sum(s) up" the problem as considered by the RAND intellectuals. By contrast, my discussion emphasizes how the necessity to fabulate becomes central to the project of meaning-making in the face of war without history.

[30] Klein (2008) elaborates this in relation to Derrida's ruminations on philosophy after 9/11. Thanks to Brian Michael Murphy for alerting me to this essay.

> may constitute a process of fearful domestication, the anticipatory assimilation of that unanticipatable entirely-other.[31]

The notion of the non-event of nuclear war acknowledges that the indeterminacy of nuclear war does not merely present us with the uncertainty of its occurrence.[32] Instead the speculation about its possibility breeds hypotheses and discourses, projected against the backdrop of events that have not yet occurred. In its lack of history, nuclear war and its potential for catastrophic annihilation become premises for anticipatory discourses—the anticipation of the purely invented scenario—unlike other sorts of catastrophes rendered more or less banal[33] and sufferable in their wake. Catastrophes which had been passed through, endured, could take on the sense as more than possible, whether momentary or enduring, because of their historical concreteness, their actual referential possibility. But when we consider the possibility of nuclear war and its coupled catastrophic winter:

> For the moment, today, one may say that a non-localizable nuclear war has not occurred; it has existence only through what is said of it, only where it is talked about. Some might call it a fable, then, a pure invention: in the sense in which it is said that a myth, and image, a fiction, a utopia, a rhetorical figure, a fantasy, a phantasm, are inventions. It may also be called a speculation, even a fabulous speculation.[34]

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[31] Derrida, *op. cit.*, 23.

[32] It is important to recognize the specificity of Derrida's use of the word "war." One might object if taking his usage casually, that the bombings of Hiroshima and Nagasaki would nullify this claim. His understanding is precise. It does not refer to the use of nuclear weapons, but to nuclear war as an escalating exchange of nuclear bombs – which, still to this day, remains a textual, i.e. imagined series of events.

[33] Masco makes a similar argument: "…what might be the social consequences of living in a world where the everyday has been so colonized by the possibility of annihilation that, for most, it has become seemingly banal?" (Masco 2006, 12). See also de Goede and Randalls (2009), who make the same reference while insisting also that the imaginative capacity carries material force and ought to be taken seriously by social scientists.

[34] *op cit*.

In this sense, the notion of nuclear war which held much of the world transfixed (or rehearsing for catastrophe),[35] was part of a discursive regime of fantasy, not least because in threatening all of human life, in a strange *futur antérieur*, also threatens the future of memory itself, and with it all future history.[36]

Rehearsing the stakes and the preparations for catastrophe were productive of more than terror. It was productive of the only identifiable knowledge on a mass scale for what could be possible, should the impossible – or never before occurred – come finally to be. The discourse of nuclear war became the only reality that could surround the possibility of complete human annihilation at the hands of a weapon that had only been witnessed in test phase, or worse, in the doubled events of Hiroshima and Nagasaki for which there was no symmetric answer. The bomb had been shown ending a conventional war; it had never been seen to inaugurate a global thermonuclear war.

The speculative prospect of nuclear war constituted a new bellicosity in which there was no adequate understanding of the reality of nuclear war. In place of a "real" war was the building of speculative discourses preparing the intellectual architecture of what such a war might look like. It was to fabulate the future as projection of the

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[35] Davis 2007, esp. 1-103.

[36] Klein, in a beautiful essay on the subject: "…what in Derrida distinguishes major events, like Total Nuclear War, or 9/11, from other events, is that they disclose the unthinkable possibility that a future event will have no future to mourn it. In the case of the nuclear holocaust, Derrida asks the question, not about what would be most tragically lost in the total destruction of nuclear war – the loss of life and of habitat – but about what would be most vulnerable to destruction without a trace. There may after all be survivors, and the human habitat might reconstitute itself. But what would vanish without remainder is the archive…" (Klein 2008, 176). I will revisit this in §V. below somewhat when returning to the ontological question that uncertainty and knowledge tends to obscure.

fabulously textual never-before.[37] Such a discourse is not limited in the least to popular imagination, but extends itself to the preparation of contingency plans and war games, an entire edifice predicated on imagining a future that had no historical basis but only a referent in the ashes of Hiroshima and Nagasaki.[38] The supposed reality of what such a war might look like cast against the way that it was imagined assumes the related features of assembling the components of living under the constant threat of nuclear annihilation:

> …the 'reality' of the nuclear age and the fable of nuclear war are perhaps distinct, but they are not two separate things. It is the war (in other words the fable) that triggers this fabulous war effort, this senseless capitalization of sophisticated weaponry, this speed race in search of speed, this crazy precipitation which, through techno-science, through all the techno-scientific inventiveness that it motivates, structures not only the army, diplomacy, politics, but the whole of the human *socius* today, everything that is named by the old words culture, civilization, *Bildung*, *scholè*, *paideia*. 'Reality,' let's say the encompassing institution of the nuclear age, is constructed by the fable, on the basis of an event that has never happened (except in fantasy, and that is not nothing at all), an event of which one can only speak, an event whose advent remains an invention by men (in all the senses of the word 'invention') or which, rather, remains to be invented. An invention because it depends upon new technical mechanisms, to be sure, but an invention also because it does not exist and especially because, at whatever point it should come into existence, it would be a grand premiere appearance.[39]

The vision of a novel war – the imagined nuclear fallout – feeds back upon itself, perpetuating the actual preparations for a conflict with no historical precedent.[40] The

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[37] Dupuy understands this as a projection that created an agreement of "*existential* deterrence" where mutual destruction could be avoided by fiat of making certain that it was humanity's *fate*. See Dupuy 2005, 88; my emphasis.

[38] On preparations of contingency plans and war gaming, see Ghamari-Tabrizi 2000 and 2005. For how such plans played a role in postwar industrial development in the U.S., see Galison 2001. On the bombing of Japan, see Schaffer 1988.

[39] Derrida 1984, 23-4.

[40] This is quite different from the way that Aradau and Van Munster characterize the logic of the conjectural style of reasoning as distinct from imagination, not least because of the way that imagination evokes a distinction from scientific knowledge which makes reference, at the very least to empirical data in the form of historical reference. See Aradau and Van Munster 2013, 31.

process affects not only the military-industrial complex that expands with the imagination of future nuclear war, but the fabulated fantasy of future nuclear fallout extends beyond and into the general mindset occupying everyday life, where not just the security profession but culture too engineers a sense of being "people of the bomb."[41]

Hence Derrida references above "*Bildung*, *scholè*, *paideia*" as features of culture and civilization. Each – the first German, and latter two Greek – signify the constitution of proper citizen-subjectivities, the civil projects of reproducing right-mindedness, or being rationally oriented to social life. Wherein the repetitive necessity to imagine a society's (or a species') complete annihilation becomes part of a general imaginary, as part of the training of everyday citizens.[42] Picture the primary school students during the Cold War rehearsing taking shelter underneath their desks, huddled from the imaginary falling bomb.[43]

To Derrida's mind the actuality of nuclear war had no historical precedent, the imagination of it became tantamount to the necessity for survival. The explicit interrelation between uncertainty and indetermination is at best blurred because while a nuclear future may indeed remain not yet determined, the epistemological element of uncertainty comes to at very least shape the determination of any possible nuclear future. While by definition a nuclear future remains in doubt, in other words, the present tends

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[41] Gusterson 2004

[42] Kinsella argues, citing Derrida, for the ways that such teaching reaches beyond Derrida's understanding of the fabulously textual into a regime of discipline: "As an overarching presence beyond the limits of its linguistic representation, that threat appears mysterious and self-generating. Such an ontological or theological absolute can neither be changed nor ignored; it appears as if our only available response is to submit to its potent disciplinary effects" (Kinsella 2005, 58).

[43] For a wonderful treatment, see Davis, Tracy. *Stages of Emergency.* Thanks to Lauren Wilcox for introducing me to this text.

toward it by virtue of the discursive fabulation of the worst-case scenario, the negative fantasy of a nuclear holocaust, never before seen, yet now always present in imagination.[44]

Marcuse recognized this decades earlier in the opening sentences of the first edition of his classic *One-Dimensional Man* (1964), which opens with the words, "Does not the *threat* of an atomic catastrophe which could wipe out the human race also serve to protect the very forces which perpetuate this danger?"[45] One notices upon first glance two things: First, Marcuse has not in mind an *actually existing* nuclear catastrophe – Japan of 1945, regardless – but the *threat*, the image, the discourse of future wastelands. Second, there remains the feedback loop that appeared in Derrida twenty years later wherein the threat (as imagined scenario) comes to underwrite the logic of nuclear defense, and reproduce with an escalating remainder the manufacture of that threat itself. Seen as a form of irrationalism, a systematically oppressive regime in which the aims of civilization and technological development and discourse seem to prevail, Marcuse poses the social ambition for technological progress, signified in its purest form by the nuclear arms race, against the free ambitions that late modern progress avers to provide. Therefore the routinization of progress and defense are equated with protecting against the promises of technological progress and defense in a tautology of potentially species-ending severity. And so the tautology preserves itself without significant duress from broad scale social resistance or disruption:

> The efforts to prevent such a catastrophe overshadow the search for its potential causes in contemporary industrial society. These causes remain unidentified,

[44] de Goede and Randalls 2009, 860.
[45] Marcuse 1964, xli. Emphasis added.

> unexposed, unattacked by the public because they recede before the all too obvious threat from without—to the West from the East, to the East from the West. Equally obvious is the need for being prepared, for living on the brink, for facing the challenge. We submit to the peaceful production of the means of destruction, to the perfection of waste, to being educated for a defense which deforms the defenders and that which they defend.[46]

"Culture, civilization, *Bildung*, *scholè*, *paideia*," recalling Derrida. A social production, a discursive regime, emerges in the mass preparation for the potential for its own annihilation in which entire populations are mobilized in service of themselves.[47] Yet unlike Derrida, Marcuse poses this problem as part of the development of industrial society, where the creation of nuclear weaponry was not the apotheosis of such a civilization, but emblematic of its critical fault lines. Where Derrida ascribes what I have referred to as a feedback loop to a "fabulously textual" fantasy of a future without historical referent, Marcuse insists that the development of such a tautological insecurity is thanks to a long material history of technological development. Moreover his vision of that "development" coincides with other efforts of governance to reproduce relations of

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[46] ibid.

[47] Gilles Deleuze and Félix Guattari ascribe this autocatalysis to the state as universal idea in and of itself: "Only thought is capable of inventing the fiction of a State that is universal by right, of elevating the State to the level of *de jure* universality. It is as if the sovereign were left alone in the world, spanned the entire *ecumenon*, and now dealt only with actual or potential subjects. It is no longer a question of powerful, extrinsic organizations, or of strange bands: the State becomes the sole principle separating rebel subjects, who are consigned to the state of nature, from consenting subjects, who rally to its form of their own accord…The State gives thought a form of interiority, and thought gives that interiority a form of universality: "The goal of worldwide organization is the satisfaction of reasonable individuals within particular free States." The exchange that takes place between the State and reason is a curious one; but that exchange is also an analytic proposition, because realized reason is identified with the *de jure* State, just as the State is the becoming of reason. In so-called modern philosophy, and in the so-called modern or rational State, everything revolves around the legislator and the subject. The State must realize the distinction between the legislator and the subject under formal conditions permitting thought, for its part, to conceptualize their identity. Always obey. The more you obey, the more you will be master, for you will only be only obeying pure reason, in other words yourself…" (1987, 375).

labor and productivity in the process of developing means of defense of the nation state as preserver of a "high standard of living."[48]

It is possible that the two perspectives are commensurable, at least in the sense that they each require a notion of the future nuclear catastrophe in their explanations. For Derrida, whose essay is a narrower examination of the force of the imagined nuclear winter, the relation is obvious. But for Marcuse, the nuclear dream is part of the nationalist project that provides a rationale for so much that confronts the working classes in industrial civilization. The triumph of industrial rationality cosigns for a "universe of administration in which depressions are controlled and conflicts stabilized by the beneficial effects of growing productivity and threatening nuclear war" where production and employment motivated by the possibility that a foreign adversary may out-produce—at the level of capitalist production, but also of the production of machines of annihilation—thus recycling the arms race into the organization of social and political life itself during the nuclear age.[49]

Consider the immediate aftermath of the bombings of Hiroshima and Nagasaki in 1945. In order to learn from the first urban atomic bombings in human history, the U.S. reformed the Strategic Bombing Survey that had studied the Allied bombing efforts in the European theaters of World War II.[50] The Survey found that in both Hiroshima and Nagasaki, the surviving buildings and facilities that somehow withstood the atomic blasts

[48] op. cit., 21.
[49] ibid.
[50] Davis 2003, 65-83.

were set outside somewhat of the centers of the cities.[51] The same had been the case in Hamburg. According to the survey itself:

> The Survey's investigators, as they proceeded about their study, found an insistent question framing itself in their minds: '*What if the target had been an American city*?' True, the primary mission of the Survey was to ascertain the facts just summarized. But conclusions as to the meaning of those facts, for citizens of the United States, forced themselves almost inescapably on the men who examined thoughtfully the remains of Hiroshima and Nagasaki.[52]

In response to the first ever nuclear attack on a human population, one of the inescapable, "insistent question[s]" of the official report on its effects was, in effect, "What if this had been us?" At this time there had only been rumors that the Soviet Union had the capacity to one day build such a weapon. Yet nevertheless the potential for a violently nuclear future reflected back upon the authors of the Survey in a way that crystalized in many ways the more theoretical discussion that I staged above. No one knew then (or now) what a nuclear war would truly look like. But the question had been made possible, and the consequence was deployed in terms of undeniable uncertainty. In other words, nuclear war lacked an ontological reality, but its epistemological component garnered full expression within the discursive reality of its possibility.

Four years later, the U.S.S.R. would detonate its own hydrogen bomb, the largest weapon of its kind discharged until then. The U.S. security establishment reacted with a sense of disillusionment and of panic. Over the course of the next two years, as a response to the nagging question of the Hiroshima and Nagasaki Survey team's wonder concerning the tables turning on their homeland, the U.S. National Security Resources Board inaugurated a program aimed at industrialists, replete with an informative booklet

[51] Galison 2001, 13.
[52] U.S. Strategic Bombing Survey 1946, 44. Cited in Galison 2001, 13. Emphasis added.

entitled, *Is Your Plant a Target?*[53] The aim of the program was to decentralize the nation's infrastructure, encouraging private industry that might play an important manufacturing role (however tertiary) in a war effort to consider moving beyond deliberate points on a radial map. The national program offered incentives for factory and plant owners to relocate out of urban areas, thereby creating a diffuse area where the nation's most vital economic resources of industrial production were not concentrated enough to perish all at once.[54]

According to Galison, not only were the nation's industrial concentration to be physically moved, to be tactically decentralized, but so motivating was the force of atomic uncertainty that the decades-long interstate highway system was finally funded in order to support distributed shipping from the now further-fetched centers of industrial production.[55] In a concrete sense, the resulting reorganization of U.S. industrial resources emerged from a more or less singular source. The Strategic Bombing Survey had both discovered the tendency for total atomic destruction in densely populated urban area, *and* it had mimetically reflected that empirical notion onto an imagined conflict that at the point of its conception was not even possible. The "insistent question" of what if the attacks had taken place on U.S. soil was entirely fabricated, was resultant entirely from the possibility of imagination, and from the uncertainty implicit in that insistent question, one of the largest industrial transformations of the 20th century history was undertaken. Or, as Galison puts it, "Three years before the Russians had the bomb, in fact before, on just about anyone's account, the Cold War had begun, American analysts were already

[53] Galison, 14.
[54] ibid, 15.
[55] ibid, 23-4.

advocating a massive dispersion of factories and populations against atomic aerial attack."[56]

Through Galison's historical account, Derrida's fabulously textual nuclear war synthesized with the Marcusian terror of technological determinism gains salience. On one hand, the purely discursive textuality of the Strategic Bombing Survey cast into fabulation the possibility of a global thermonuclear war, where the ashes of Hiroshima and Nagasaki were mimetically mapped onto the possible destruction of the American urban industrial landscape. But that the strategic move was to revolutionize the infrastructural grid for the survival of American manufacturing meant that the Marcusian insistence that the self-fulfilling drive of the industrial-warfighting civilization had become one with the necessity to imagine the war that would solidify it, crystallize it. It was as if the nightmare of nuclear evisceration motivated the practical policy initiatives, and each were supplied by the complete uncertainty concerning a crowning achievement of technological arms making. The imagination of a carbonized United States caused the dispersion of its principal economic machinery as an anticipatory program developing "defense in space" (in the sense of space between targets, not necessarily in the yet breached final frontier). Galison summarizes the stakes of this well:

> As the Cold War arms race accelerated, the search for 'defense in space' grew more desperate: jet bombers, atomic bombs, hydrogen bombs, intercontinental ballistic missiles. With each step, more frantic urging to spread the cities into their 'marketing areas.' Highway systems, dispersed factories, gridded telephone links. If nuclear war could not be won, it could, perhaps, be survived—if the nodal point of the society could be broken up and scattered, redundantly, through space. Meshed satellite communities joined by an interstate and defense highway system; grids of phone nodes joined by an array of cable and radio links. Throughout the transformation of these architectures of infrastructure,

[56] ibid, 29.

> computation, highways, and factories lay the remarkable practice of training Americans to see themselves as targets.[57]

How bizarre to reflect on such a systemic shift predicated on a nagging question that concerned the incapacity to know whether or not one's own military capacities could one day be reflected back to cause such destruction at home. A full-scale reorganization of American industry, utilities, and domestic transportation; transformations in geographies of work; innovations in communications networks to facilitate the new landscape of the nuclear age: And none of it was inspired in an age where more than one nation-state possessed the bomb. Collier and Lakoff connect this history to the present by way of arguing that this scene of material distribution in response to imagined threats animated a framework with long lasting results, now understood through what they call "distributed preparedness."[58]

All of this frames the catalyzing force of uncertainty in the age of the singular global catastrophic threat. The impossibility of knowing how or when, but the simultaneously present possibility of a nuclear holocaust, placed the concept of the future catastrophe in seemingly permanent relation with the possibility of nuclear war. Yet the diffusion of the threat, as we saw somewhat abstractly in Marcuse's mind, and more concretely in Galison's, showed the potential for a distributive form of imagining the end. Enzensberger encapsulates this ubiquitous terror in a way that anticipates the post-Cold War mentality concerning the future catastrophe. His vision shows how endemic catastrophic thought had become already by 1978.

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[57] ibid, 29-30.
[58] Collier and Lakoff 2008, 26.

In a piece that seems dramatically prophetic for the late 1970s in how it imagines catastrophe in ways as dispersed as the early Cold War industrial dream, Hans Magnus Enzensberger echoes somewhat the reach of the fantasy of catastrophe, into myriad corridors of social life. In a prose-poem, "Two Notes on the End of the World," Enzensberger confronts the end of the world as "aphrodisiac, nightmare, a commodity like any other."[59] "You can call it a metaphor for the collapse of capitalism," Enzensberger continues,

> which as we all know has been imminent for more than a century. We come up against it in the most varied shapes and guises: as a warning finger and scientific forecast, collective fiction and sectarian rallying cry, as product of the leisure industry, as superstition, as vulgar mythology, as a riddle, a kick, a joke, a projection. It is ever present, but never 'actual': a second reality, an image that we construct for ourselves, an incessant production of our fantasy, the catastrophe in the mind.[60]

In one way, Enzensberger draws forward the motif of the imagined catastrophe – the actual material affective force of thinking an undetermined future, the necessity to do so that stems from existential uncertainty, a remote alienation from the harsh realities of existing at a time when human life might end categorically at a moment's notice. But in another way, Enzensberger extends beyond that discourse, though he inhabits it as well, in distributing the affect of catastrophe – the aphrodisiac, the vulgar mythology, the superstition – compounded with the lived reality of a pending end of the world event. The future catastrophe is no longer numbing, spellbinding; its affects are felt across a

[59] Enzensberger 1978, 74.
[60] ibid.

spectrum.[61] He refers to that abstract, yet looming disastrous event alternatively as apocalypse and catastrophe. One sacred, one secularized; both simultaneous.[62]

The future catastrophe is transformed, elaborated, and diversified in Enzensberger's "Note…" No longer is the fabulously textual future one which stems from only the possibility of nuclear war, but the socially distributed effects of an age securitized by the omnipresent possibility of complete destruction has now reached into other dystopias: "the police state, paranoia, bureaucracy, terror, economic crisis, arms race, destruction of the environment."[63] The Marcusian harmony of industry and war-making in Enzensberger's observation occupy many operative corners of social life: but each is a feature of repression, of a multivalent secularized apocalyptic possibility in every corner of contemporary life.

Anticipating the critics and theorists of the post-9/11 age (this is the subject of the following section), Enzensberger departs from the looming possibility of the singular event – the nuclear holocaust – and reflects on the discursive noise of catastrophic anticipation springing from cinemas and other screens; evangelists, policy makers, and scientists:

> The apocalypse was also once a singular event, to be expected unannounced as a bolt from the blue: an unthinkable moment that only seer and prophets could anticipate – and, of course, no one wanted to listen to their warnings and predictions. Our end of the world, on the other hand, is sung from the rooftops even by the sparrows; the element of surprise is missing; it seems only to be a question of time. The doom we picture for ourselves is insidious and torturingly slow in its approach, the apocalypse in slow motion.[64]

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[61] See Massumi 2005.
[62] See Dupuy 2005, 100-103; Dupuy 2013, 31-34.
[63] Op cit.
[64] ibid, 75.

Where the Marcusian-Derridian dream had been one of singular nuclear annihilation (or at least its message), and in that vision the end would come as surprise, more than gesturing to the importance of it being an uncertain fulfillment, Enzensberger's version is lethargic and hanging everywhere discursively. It almost heralds a banality. Moments later in the passage, after an imagined Dr. Strangelove imposter explains that the ozone layer will be completely gone in twenty years' time, and the audience simply yawns: "…it's not going to come this afternoon. This afternoon, everything will go on just as before, perhaps a little bit worse than last week, but not so that anyone would notice."[65] Enzensberger shows the affective baggage attached to the constant barrage of fabulously catastrophic textuality:

> It would really be simpler if we were rid of the problem once and for all; if the catastrophe really did *come*.

More and more, Enzensberger strives to show how the dream, fantasy, or fabulation of "the coming catastrophe" had not in the least disappeared. Instead the fabulation of future catastrophe leaked from the institutions of security provision and into most sectors of social life. From massive programs to literally restructure places of work and production, to innovate networked means of communication, and in the transfixed reality of the ever-present possibility of annihilation, two results can be seen.

First, so much was transformed that the effects of the looming catastrophe had suffused into areas of life that were not usually associated with national security.[66] The place of work, for example, became de facto *re*-placed in an effort to conform to the

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[65] Ibid.

[66] For a terrific historical account of the ways that nuclear fear suffused into everyday life see Davis, *Stages of Emergency*, esp. "Act Your Part: The Private Citizen on the Public Stage," pp. 104-223.

imagined future catastrophe. Second, and related, the catastrophe therefore could now involve the collapse of any part of civil life, given how much of civil life had been reorganized in response to the potential for massive, if not final, attack. Repeating Galison, "throughout the transformation of these architectures of infrastructure, computation, highways, and factories lay the remarkable practice of training Americans to see themselves as targets."[67] And now, it mattered less if the catastrophe was because of a nuclear war. At stake was the continuation or collapse of a certain version of a way of life, translated into a particularly Western "high standard of living."[68]

And so, now it seems that the *"*Apocalypse is part of our ideological baggage."[69] But it is necessary that it cannot be felt the same for everyone. The once singular catastrophe, now distributed through industrial Western society, and rearticulated by the pursuit of a high standard of living transforms the sense of looming tragedy – disambiguates it, really – from the traditional sense of apocalypse or the nuclear sense of total annihilation:

> …doom is no longer a leveler, quite the opposite. It differs from country to country, from class to class, from place to place. While it is already overtaking some, others can watch it on television. Bunkers are built, ghettos walled in, fortresses erected, bodyguards hired, on a large scale as well as a small.[70]

The possibility certainly remained in 1978, as it does now, that human civilization could succumb to more or less instant death. Nuclear war could quickly transform a planet overtaken by the human species into a planet of corpses. But the constant affect of

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[67] ibid, 29-30.
[68] Marcuse 1964, 21.
[69] Enzensberger 74.
[70] ibid, 75.

fabulously textual catastrophic warning has diffused, and strangely separated, again, those who might suffer from events not yet determined.

As we shall see, this mode of political thought has not dissipated, but renewed in the contemporary moment, renewed by even more diverse fabulations of uncertain futures, recombining security and catastrophe powerfully still.

IV. Contemporary Critical Uncertainties

The theme of uncertainty, to the extent that it ever fell out of fashion, reclaimed a certain centrality in political discourse in the aftermath of the events of September 11, 2001. But before that, a theoretic vocabulary was already importantly supplied in the writings of Ulrich Beck in his landmark *The Risk Society* (1992).[71] That book, published in English in the immediate aftermath of the Cold War which animated the imaginations of thinkers adumbrated in the previous section, begins from the claim that the word *post*-, in the way that it modifies *post*-modernity, imagines that the postmodern age – a new moment at the end of history as Fukuyama would put it[72] – negates what preceded it at the same time as being built upon its history, vocalizing an ambition "to move the future which is just beginning to *take shape* into view against the *still* predominant past."[73] Perhaps a rhetorical flourish, but Beck had written a book that held uncertainty about the future at its center of defining modern social life as it lurched into a new modern moment of capitalist production, just as he simultaneously attempted to redefine the way that modern social life more broadly had subsumed both the future and the past into a

[71] First published as *Risikogesellschaft. Auf dem Weg in eine andere Moderne* (1986)
[72] Fukuyama 1992, xi.
[73] Beck 1992, 9. Original emphasis.

technocratic endeavor collapsing these temporalities. His view of postmodernity was not incommensurate with industrial modernity but reflexive, a society that learned to redistribute risks over itself and render, therefore, risk endemic to modern social life in its very structure.[74]

In a sense, risk is only a mode of calculation.[75] It marks no ontological reality in itself, but attempts to cope with and add significance to the category of uncertainty.[76] As Jacqueline Best puts it, "risk underlines both our sense of fragility and our constant attempt to reduce it by making those unknowns calculable."[77] Uncertainty, on the other hand, persists as an epistemological category not beholden only to categories of risk –

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[74] Beck 1992, 155-83.

[75] Perhaps of any risk theorist, François Ewald makes this point most clearly with reference to the politics of insurance: "In everyday language the term 'risk' is understood as a synonym for danger or peril, for some unhappy event that may happen to someone; it designates an objective threat. In insurance the term designates *neither an event nor a general kind of event occurring in reality* (the unfortunate kind), but a specific mode of treatment of certain events capable of happening to a group of individuals – or, more exactly, to values or capitals possessed or represented by a group of individuals: that is to say, a population" (Ewald 1991, 199; my emphasis). He continues, clarifying several pages later: "For an event to be a risk, it must be possible to calculate its probability. Insurance has a dual basis: the statistical table which establishes the regularity of certain events, and the calculus of probabilities applied to that statistic, which yields an evaluation of the chances of that class of event actually occurring" (Ewald 1991, 201-2).

[76] The point, to be clear, is that for Ewald a longtime theorist of risk, "risk" as such is a form of knowledge that has no existence in the world free from its formulation as a calculus. Or, as he put it perhaps most famously only pages earlier, when completing the first quotation above: "Nothing is a risk in itself; there is no risk in reality. But on the other hand, anything *can* be a risk; it all depends on how one analyzes the danger, considers the event" (Ewald 1991, 191). Dean 1998 echoes this in the opening lines of an important essay: "There is no such thing as risk in reality. Risk is a way – or rather, a set of different ways – of ordering reality, of rendering it into a calculable form. It is a way of representing events so they might be made governable in particular ways, with particular techniques, and for particular goals" (Dean 1998, 25). In other words, the calculable feat of risk involves, a) rendering or representing reality, so that b) it can be governed calculatively. Such a formulation permanently attaches to risk a place in the analysis and critique of power, and removes from it a presumed innocence of objectivity.

[77] Best 2008, 355.

and therefore the calculable – but is intrinsic to "our ability to anticipate what the future holds…"[78] In other words, while risk and uncertainty are so often paired – as when we are uncertain, we consider the risks – uncertainty corresponds more naturally as I argued above to indeterminacy. But to be most clear, risk refers to *calculation* as an attempt to make sense of the unknown: "It is thus not possible to speak of incalculable risks, or of risks that escape our calculation…" because risks are by their very definition a species of calculative knowledge.[79]

Best argues that the broad range of knowledge produced as an outcome of uncertain thinking often results in ambiguity. The flexibility of interpretation leads political scientists often to desire certainty. But Best issues a much-needed provocation. In nearly endless ways, the objects of governance, security, and political-economic activity more broadly all correspond through their interpretive mechanisms. As a result, each fundamental field of politics and international relations correspond to interpretation by way of the necessity to govern ambiguities of meaning.[80] The point, to be clear, is that the relationship between uncertainty and indetermination – and precisely not uncertainty to risk (which is quantitatively calculative) – produce an array of interpretations that are central to the actually-existing process of governmental activity. Instead, the interpretive necessity to work within, define the limits of, and navigate ambiguity, emerge as a fundamental element of practices of political governance.[81]

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[78] Best 2008, ibid.
[79] Dean 1998, 25.
[80] Best 2008, 356.
[81] Best 2008, 370.

To readers and enthusiasts of the risk paradigm, the possibilities of risk analysis offer sophisticated means through which to measure the possibility of ameliorating, not simply uncertainty, but the worst ontological possibilities of what may come, what the future itself may be.[82] But when indeterminacy is considered in the era immediately following September 11, 2001, the question, posed by both intellectuals and security professionals alike, moves somewhat from the calculative to the imaginative.[83] In this section I emphasize the continuing dominance of uncertainty in contemporary political theoretic writing on future catastrophes. By doing so I reflect on the continuities and discontinuities of the previous section/historical moment with the present, post-9/11 moment. It draws mainly on scholars of critical security studies and critical geopolitics who reflect on the changing landscape of U.S. security after the terrorist attacks of 9/11.[84] In the contemporary post-9/11 critical responses to securitization, precaution, and other measures developed in the U.S. security establishment to deal with "unknown unknowns."[85] But in the ensuing decade, these techniques of thinking the future came as well to envelop other phenomena including hurricanes, tsunamis, economic crises, and other massive disasters, and stretched the pursuit of certainty about future events to encompass larger and larger swaths of potentially lethal phenomena.

As a consequence, this section supports the arguments of Chapter 3 below that outline the ways that the same problem of uncertainty-indeterminacy blurred the singular

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[82] See Amoore 2013, esp. 55-78; McDermott 2001; Woollacott 1998; Rothe 2011; Kessler and Daase 2008; Corry 2011; Clarke and Chenoweth 2006

[83] This will be elaborated in due course, but see for example: Aradau and Van Munster 2011, 17-31; de Goede 2008; Salter 2008, 248.

[84] Mainly Aradau and van Munster, Salter, de Goede, Lakoff & Collier, Anderson, Adey, Neal.

[85] Aradau and Van Munster 2011, 6-8.

nature of "the coming catastrophe" as total nuclear war into a catchall watchword signifying a universal insecurity from the unknown.[86] The contemporary style of thinking about future catastrophe is more opaque, and yet still more given to the logic of uncertainty – how to cope with it, how to reduce it. The ultimate point that this section emphasizes should be stated explicitly: The nascent work of imagining the future inaugurated by Cold War thinkers concerned about human survival continues.[87] It has now diversified into multiple ranges of possible futures that threaten human life – but not before total nuclear war was practically and, as a result, critically, transformed into attempts to imagine terrorist attacks in the post-9/11 imaginary. The effects of this transformation are far-reaching and now inform a litany of threats including and beyond the potential for terrorist attack, but also touching upon a range of so-called natural disasters, technological accidents, civil unrest, economic collapse, and as far as the mind can reach. In other words, the centrality of imagination to security efforts resulted likewise in a proliferation of ideas anticipating catastrophe as a problem encompassing all of the uncertainties about all the different ways to die.[88]

The presumed association in the literature about catastrophe and security emphasizes the relationship between knowledge (un/certainty) and action (security behavior) that tends to underestimate the importance of indetermination in what constitutes a catastrophe. Jacqueline Best, as I mentioned, partly frames this in terms of

[86] Hence the title of Chapter 3, "Normal Catastrophes."
[87] de Goede and Randalls 2009, 862.
[88] For an excellent appraisal of the relationship between governance and uncertainty with respect to imagination, see O'Malley 2011.

ambiguity.[89] Aradau and Van Munster tend toward a discussion of *imagination* made more technical in the form of "conjectural reasoning," citing Carlo Ginzburg.[90] Each corresponds to uncertainty, but the "what" of uncertainty isn't knowledge in my view – it is the undetermined future.[91] In place of a scholarly attention to the ontological infirmities of indetermination stands a widespread fascination with the practical limits of calculative analysis deriving from the prominence of risk. In other words, uncertainty dominates and further complicates matters, as much of the theoretical literature – critical as it is – often circulates around the notion of uncertainty (such is the case that "thinking the unthinkable" is not merely a cliché of this school of thought).[92] In prominent ways, Cold War thought anticipated the current moment by introducing the logic of invention – the strategy of imagination – as a means to cope with tensions between the uncertain (epistemological) and the undetermined (ontological).[93] But it tended to do so in two important ways. First, Cold War thought preoccupied itself with a singular phenomenon – total nuclear war – and consequently was able to theorize more precisely the calculable elements of its probability and potential outcomes.[94] Second, and as a result, Cold War thought added credence to the calculable qua risk that provided emphasis to "thinking the

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[89] Best 2008

[90] Aradau and Van Munster, 7 and also 31-51, and 68-84. Others also develop this concept with the language of imagination, see Salter 2008 and O'Malley 2011; and speculation, de Goede 2008 and 2012.

[91] The final substantive section returns to Derrida before turning to J-P Dupuy to emphasize this point.

[92] Kahn 1960, 1962a, 1985; Ghamari-Tabrizi 2000, 2005.

[93] Aradau and Van Munster treat the concept of imagination multiple times in their text, wavering on its use as sometimes critically important, pp.7-9, and at other times less than scientific, pg. 31, as it is perceived by others. They prefer the concept of "conjectural reason." See also Kessler and Daase 2008.

[94] Aradau, Lobo-Guerrero, and Van Munster 2008. Aradau and Van Munster (2011) debate the veracity of this claim, pp. 17-18.

unthinkable," but at the same time in only the calculable form. So the foundation was laid for imaginative thought to pervade security theory – both practical and critical, but mostly under the guise of risk analysis.[95] Such a powerful confidence in risk analysis led to what Didier Bigo called the "authority of statistics" as a means to create hierarchies of risks which prioritize threats – all of which depend to some degree on the calculable as expressive of, not what is unknown, but what can be known even to an infinitesimal degree.[96] As the Cold War came to an end and the range of threats reduplicated from the singular – total nuclear war – to a growing landscape of whatever could be thought, all and sundry, such that the calculative emphasis deteriorated in both priorities of practical and critical thinking about human security.[97]

There exists a strand of thinking that when read together emphasizes "imagination" as a critical response to the issues inherent in the unknown features of future events: They required imagination in order to have reality in the present. But the problem of future catastrophe also has an ontological edge wherein it has not yet been *determined*, and as such might embody a long range of future realities whether imagined or not. Aradau and Van Munster recognize this tendency to prioritize imagination. But they do so by way of "conjecture" (to which I will return in due time).

Aradau and Van Munster make a point of this feature of novelty in the threat that nuclear war posed to security, and its attendant experts: "…uncertainty had been key to

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[95] Collier and Lakoff 2008.
[96] Bigo 2004. Discussed also in Aradau and Van Munster 2007, 97. See also O'Malley 2011, 41.
[97] Aradau and Van Munster 2007, 91. Here they argue that risk analysis that follows the logic of isolating singular risks transformed in the war on terror to a more generalized logic of "precautionary risk." See also Aradau and Van Munster 2008 for a different take, while still elaborating on similar themes.

understandings of security dilemmas and did not enter security studies with post-Cold War debates about risk and uncertainty… Bernard Brodie, another RAND scholar and a founding father of strategic studies, argued that nuclear weapons 'have transformed all recognition with the past,' the 'change being so unprecedented that historical comparisons fail us almost completely.'"[98] Aradau and Van Munster, too, connect this new form of uncertainty, its break with a history of warfare, and imagination with Derrida's essay that I discuss here. But their account merely points to an affinity where Derrida "sum(s) up" the problem as considered by the RAND intellectuals.[99]

In their landmark study, *Politics of Catastrophe*, Aradau and Van Munster attempt to develop a theory of catastrophe for security studies that attends to the range of ways that threats – necessarily not in the present, which is to say events that would have already occurred, but threats understood "on the basis of what has not and may never happen: the future"[100] – came to preoccupy contemporary expertise with respect to security. Many experts focusing on security and its logics trace the emergence of catastrophe to either the rise of nuclear warfare or the post-9/11 age of surprise terrorist attack.[101] "Most of these arguments," Aradau and Van Munster recognize, "tend to emphasize the particularity of catastrophes as types of events that *remain shrouded in uncertainty*, confound expectation and challenge the predictive, preventive and protective

[98] Aradau and Van Munster 2011, 18.
[99] By contrast, my discussion in the previous section emphasizes how the necessity to fabulate becomes central to the project of meaning-making in the face of war without history.
[100] Anderson 2010b: 777; see also, Anderson 2010a.
[101] Aradau and Van Munster make this argument. Also see Collier and Lakoff 2008. As well as Lakoff 2008. Galison (2001), in the sense that I read him above can also be placed in proximity to this view.

knowledge of security experts."[102] Part of the focus on uncertainty reflects a shift from a retrospective to a prospective temporal emphasis on what matters most about the ideas surrounding catastrophes themselves.[103] (Such a shift expresses a pointed change in focus on catastrophe to the future-oriented, anticipatory importance of conceiving catastrophes as a necessary part of human security.) But the centrality of catastrophe in terms of future-oriented events can be seen in several ways, the articulating logic of uncertainty being only one.

Yet when articulating the different trajectories of Cold War and post-9/11 modes of reasoning about catastrophe, the distinction that they draw – and how they delineate it singularly along the lines of uncertainty – deserves more attention. Specifically, as Aradau and Van Munster attempt to write a history of catastrophic security theory, they notice a perceived "radical break" in how security scholars view the Cold War differently than the post-9/11 present. Citing Christopher Coker, Aradau and Van Munster isolate a false dichotomy in this literature in which the threat of nuclear war was constructed as singular and certain, as opposed to in the post-9/11 environment when threats are perceived as more diffuse and varied.[104] They aptly cite Michael J. Williams remarking that "[t]oday's world is far from predictable… Risk and uncertainty are the hallmarks of world politics at the dawn of the twenty-first century."[105] As Aradau and Van Munster point out, the presence of certainty during the Cold War projected against the uncertainty of the present imposes a false dichotomy.

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[102] Aradau and Van Munster 2011, 1.
[103] Ibid. 17.
[104] Coker 2009.
[105] Williams, M.J. 2008: 58.

Aradau and Van Munster assert correctly that the dichotomy of Cold War certainty versus post-9/11 uncertainty is a false one. Thinkers ranging from security experts to philosophers knew that the notion of nuclear annihilation was far from certain. Writers as varied as Herman Kahn and Jacques Derrida recognized, for example, that the certainty of nuclear annihilation was far from a foregone conclusion.[106] But simply insisting that there was a lack of certainty – or, more precisely, that acknowledged uncertainty drove much of the intellectual production by security experts (and even their critics) – does not alleviate the tension produced by the aporia of positing the differences between the Cold War atmosphere of security thinking and the security thinking of the present. For Aradau and Van Munster, there is a common thread connecting the relationship to future catastrophe exhibited in the Cold War and in the post-9/11 present: the future cannot be known. Because future uncertainty drives so much security thinking, they argue, there are common threads of today's security rationales that can be traced in a genealogy to their Cold War ancestors.

I do not dispute that uncertainty in fact drove a considerable amount of intellectual thinking about security during the Cold War, and it certainly remains a driving force today. But there is a worthwhile distinction to be drawn between the two eras that shines new light on the prominence of catastrophe in the present. Their book, bearing the telling subtitle, *Genealogies of the Unknown*, draws our attention to a history of the present driven by the human desire to secure in the face of *uncertainty*. The focus on uncertainty in writing – theoretical or otherwise – about catastrophe places the emphasis on human knowledge: a focus on uncertainty elevates practices of experts to

[106] Aradau and Van Munster 2011, 18; Kahn 1962a; Derrida 1984.

control certain narratives of temporality, etc. with respect to what can be done in response to what, necessarily, becomes an object of imagination.

Uncertainty can tell us a lot about, as Aradau and Van Munster put it, "[w]hat kind of actions in the present are made possible on the basis of worst case scenarios of nuclear war and natural hazards."[107] And, following them further, avoiding "postulating that the Cold War period was characterized by a future that was known and predictable, the interesting question to ask from a governmental perspective is what forms of discourses, methods and forms of knowledge are legitimized and deployed for governing an unknown future?"[108] But couched in this couplet, "unknown future" is supposed to be a rebuke by Aradau and Van Munster of those security scholars who believe that the notion of security in the Cold War existed "within the management of predictable and well-known threats, whereas after the Cold War, with the demise of the Soviet Union, states were faced with a plethora of threats that could not be known, predicted and prevented."[109] Thus Aradau and Van Munster prioritize the concept of uncertainty as a means to disrupt the conventional reading of an era of security in which the worst case scenario – the prospective catastrophe – was riddled with elements of uncertainty, and as a consequence, security experts had to contend with such uncertainty as a focal point of their work.

These reflections about the Cold War cover a lot of ground in troubling the waters about nuclear security. But their critique – and the way that it tends toward collapsing the false radical break between scholarship on Cold War nuclear security and present day

[107] Ibid, 19.
[108] Ibid.
[109] ibid, 18. See also Collier and Lakoff 2008.

counter-terrorism – tends toward promoting uncertainty as the governing motivation behind security as an almost transhistorical impetus of the industrial age. In other words, there is a way that uniting the two eras in the way their shared emphases of uncertainty exalts an epistemological aporia that is central to trying to negotiate a present by way of the future. But it also obscures the ontological reality that the future – the very matter to which we stand uncertain – is yet undetermined. The future is not only an epistemological problem, in other words, but is also an ontological one.[110]

Focusing on security expertise, and mostly committing to the prevalence of work aiming to protect against future terrorist attacks, Aradau and Van Munster deploy the concept of uncertainty to illustrate how the driving force of uncertainty in the Cold War provided tools for understanding the contemporary security landscape in which terrorism and unconventional war preoccupies current security professionals.[111] Yet there was a prevailing agreement – or, certainty – in the Cold War security scene: The prospect of catastrophic death loomed most obviously because of the singular potential of nuclear war between the United States and the USSR.[112] While there was clearly uncertainty about whether or not such a war would take place, or whether or not there were actions that could be taken to mitigate its potential for occurring, the widespread focus from security experts to duck and cover exercises in schools revolved around the singular phenomenon of the nuclear attack.[113] In other words, the critique leveled by Aradau and Van Munster might be correct in terms of asserting that there was plenty of uncertainty

[110] Best 2008; Dupuy 2009.
[111] Ibid, 5.
[112] See Ghamari-Tabrizi, S. 2000. On competing theoretical strategies see Zellen 2012, esp. 42-48.
[113] See Zellen 2012, 43. See also Kaplan 1983.

during the Cold War, but they make less of an issue about the *what* of what is presumed to be known. The prospect of nuclear war was singular; the present fear of future catastrophe is best characterized as a diffusely powerful abstraction, encompassing nearly all disastrously imaginable futures. The notion of uncertainty therefore only gets us so far. We also need a conceptualization of indetermination that helps to link knowledge (uncertainty) with the ontological element of what exactly is anticipated, prospected, and conjectured.

In the post-9/11 era, the landscape of threats broadened considerably. Aradau and Van Munster, along with many others, recognize the ways that the singular-becoming-diffuse created new problems that extended well beyond the calculative potentials of thinking the singular event.[114] As a result, new critiques in the world of policy suddenly began to be waged on the successes and failures of imagination itself. In part because the threats had diversified in kind and scope, becoming less singular in nature than threats of a singular enemy in a singular form, ideas about security had to be recreated at the level of scenario-based imagination and speculative practice.[115]

The idea of the lurking threat intrinsic to terrorism resulted in key changes that demanded imaginative practices for the purposes of security policy. The possibility of a disastrous attack coming from anywhere centralized the necessity to speculate, and to harness even the "craziest imagined views."[116] As Aradau and Van Munster rightly recognize, pressures to create practices that could more fully imagine the future emerged not just from overzealous practitioners, but even critiques from policy makers. The 9/11

[114] Amoore 2013; de Goede 2012; O'Malley 2011; Reid 2009; Salter 2008
[115] See Lakoff 2006, 2007, 2008;
[116] Ewald 2002

Commission Report "criticizes bureaucracies for *lack of imagination*, for failing to notice signs that were indicators of the attacks."[117] The result was new architectures of security policy that incorporated importantly both series of scenario-based training exercises and also more seemingly outlandish experiments of writing worst-case scenario outlines with the help of spy novelists.[118]

The profound effect that scenario-planning had on security practices (and practitioners) should not go understated. Andrew Lakoff and Stephen Collier have made more scholarly impact than almost anyone else in showing the historical and anthropological links between the Cold War and post-9/11 moments through, especially, the ways that scenario-based exercises grew to prominence in realizing the theoretical – or perhaps "imaginative" also fits here – in the sense that various inclusions of enacted, embodied exercises helped to alert security practitioners and managers to the affective importance of potential future disasters.[119] Collier traces a genealogy of the ways that, literally, "acting out" scenarios of future disaster reached across the Cold War into the post-9/11 moment as a means for learning by way of enactment because a paradigmatic means of knowledge production for security professionals.[120] Lakoff writes about the emergent affective force of scenario-based exercises in the context of emergent biothreats

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[117] 9/11 Commission 2004, 346 (my emphasis); Aradau and Van Munster 2011, 74; Salter 2008; de Goede 2008

[118] Aradau and Van Munster 2011, 8-9. I write about one of these programs in Chapter 4, called the Analytic Red Cell Program, which invited spy novelists to help write emergency planning scenarios that might help to inspire counter-terrorism measures and contingency plans.

[119] Massumi (2005) writes about a broader cultural distribution of affective power in which the terror alert register operates on an embodied level and in a form of signaling beyond being beholden to language. See also Massumi 2007 for more on affect, potentiality and precaution.

[120] Collier 2008, 225.

in order to show the force that such exercises had upon shifting views of preparedness.[121] For each the process through which security professionals learned to imagine threats through experiences of rehearsing for future disaster scenarios proves materially important; not least because, as Lakoff puts it, they "generat[ed] an affect of urgency among officials in the absence of the event itself; and second, to generate knowledge about vulnerabilities in response capability that could then guide anticipatory intervention."[122]

The importance of the scenario-based exercise is twofold. It shows that there were efforts even before the post-9/11 era that attempted to breathe breath into the non-calculable elements of future-oriented security. But it also, second, in the work of Lakoff and Collier shows the ways that, in the wake of 9/11, that new operational importance was placed on such measures because no longer was it seen solely advantageous, or even prudent, to operate from a standpoint of disaster prevention – it was seen as vital to enact a regime of preparedness.[123] Ben Anderson has extended this scenario-based analysis to show how they have been enfolded into measures promoting counterterrorism activities.[124] Building on what I showed with Collier and Lakoff, Anderson is able to show how the exercises enabled a future-oriented means for "naming" events that are only hypothetically possible, and as such producing a presumed specificity to generic events that were previously more abstract. As a result the future – as a constructed problem for security – becomes practical in the sense that it is no longer abstract but

[121] Lakoff 2008, 414-17. Another interesting and relevant take on bioterrorism and pandemics is Alexander 2010.
[122] Lakoff 2008, 401.
[123] Lakoff 2008, 417.
[124] Anderson 2010a; see also, Adey and Anderson 2012.

exists in the specificity of practical knowledge, even if that knowledge itself remains somewhat hypothetical: "The impression of a future event is made present through a set of techniques that aim, even if they do not necessarily succeed, to foster a 'realistic immersion.' What the play of the game aims to create is the event as an intensified felt presence."[125]

Seen together, the range of scenario-based exercises unifies a swath of potential events into the notion of "the coming catastrophe," and a catastrophe that is enormous in scale because at very least of its presumed implications in the absence of its own reality. In the face of "total threats," such as terrorism or climate change, logics of preemption, precaution, and preparedness gradually took the place of prevention.[126] Compounding the undetermined future – what Michael Dillon refers to as the result of "radical contingency" – with the scope of the threats attached to large-scale disastrous events means that new modes of security practices were passionately embraced to fill a void, that it should not go without saying, was being reproduced by these very methods.[127] One can see immediately renewed the strange separation between uncertainty and indetermination. So profound are the stakes inherent in the indeterminate future of total threats emerging from radical contingency that an entire system of security practices emerges around them. The question of uncertainty exists nervously within the contingent present, redoubling the fear of the undetermined future. But most importantly for critics of contemporary security, that very insecurity intimately interwoven with indeterminate

[125] ibid, 233.
[126] de Goede and Randalls 2009; Anderson 2010b; Aradau and Van Munster 2011, 33-5; Lakoff 2008.
[127] Dillon 2007

temporalities, awakens the question of uncertainty. How is it that we can produce knowledge of what we cannot know? How else might we secure ourselves than to wager against our uncertainty?

Aradau and Van Munster argue forcefully for a concept to cope with such radical contingency called "conjectural reasoning," which…

> does not function through analogy with financial practices as implied by speculation, in denial of evidence as premediation would hold, or at a distance from scientific knowledge, as uses of imagination and fantasy in this context intimate… A conjectural style of reasoning…constructs an explanation out of apparently insignificant details. It links the smallest and most inconsequential details to a larger context which cannot be directly observed or experienced.[128]

Embedded in this concept is an analysis of security expertise, but also a critical perspective on other kinds of knowledge production, with reference to operational modes of imagining future terrorist attacks. "The next terrorist attack," comes to characterize their interest in "conjecture" with reference to terrorism-security, not catastrophe necessarily, at least as broadly conceived as I treat it here in this dissertation. Drawing from Ginzburg, who seizes on the methods of Giovanni Morelli, Sigmund Freud and others who extrapolate presumably scientific conjecture from small, seemingly errant details and mistakes, Aradau and Van Munster find promising homologies between this register of deciphering larger potential truths that are reflected in the operations of terrorism experts.

As they put it, "the conjectural style as outlined by Ginzburg is underpinned by a model of reality as double: some trivial details from reality, invisible to all but to the eyes

[128] Aradau and Van Munster 2011, 7-8.

of specialists, offer access to a hidden reality underneath."[129] This description outlines the process by which they understand the pursuit of conjectural reason. In the sentences that follow they however attempt to supplant a "dialectical" approach which would, to their minds, introduce a "promise of resolution" among contradictory styles. Their hope with combining the notions of conjectural reasoning with Foucault's logic of strategy is to render a way of coping with uncertainty that allows for deductive-conjectural reasoning to operate while at the same time rendering the information, and the range of different practices, distinct from one another. This is laudable. Because the work of counterterrorism relies on such knowledge production that deals with copious amounts of information in which its principal objects (terrorists) operate in secret, conjecture must operate to amass information rendering a composed idea from, at very least, scattered data.[130] Resulting from this mass of data are a range of different approaches to working to develop knowledge of future attacks – they call them the "P-modes of knowledge": pursuit, prevention, preparation, and protection – all of which do not neatly align with one another in their aims.[131] Nevertheless, as a whole they perform conjectural modes of reasoning, slightly modified:

> …counter-terrorism knowledge attempts to find clues on the basis of styles of reasoning that look at regularities, patterns and correlations. The unknowns of secrecy, ignorance, risk, uncertainty, surprise and novelty are not tamed through patient engagement with the archive in each particular case; they are supposedly "discovered" in a self-revelation of knowledge. On the one hand, preventative, precautionary and preparedness knowledges aspire to see through the irregularity in data and locate the detail that may yield the much-needed access to the invisible world. On the other, data itself is purged of inference and conjecture and not linked to any archive. Thus, the reasoning based on the discovery of new

[129] Aradau and Van Munster 2011, 32.
[130] Ibid, 35.
[131] Aradau and Van Munster 2011, 33.

> patterns and clues among data uses conjectures in a quite different sense – they are seen as emerging not out of the individual case but out of the multiplicity of data…. As long as preventive, precautionary and preparedness knowledges establish truths, measure evidence and compute the future on the basis of styles of reasoning adapted to frequencies and regularities, they fail in the encounter with the irregular, the unexpected, radically uncertain and singular. [132]

Conjectural reasoning in the scene of counterterrorism involves a range of different approaches, hence their insistence on also including in their thought process the Foucauldian logic of strategy. But different from Ginzburg's idea of conjectural reasoning, Aradau and Van Munster here show that rather than understanding data as a group of data from which to understand an individual case – as in a painting, or a psychoanalytic analysand – instead conjectural reasoning manifests in the range of different practices, working on another level of magnitude in terms of data, means that in the scene of security expertise, conjectural reasoning is *productive* of a body of knowledge that stands in for the reality of their object.[133] As such security expertise hinges on, or even *reflects* its own practices back upon itself in hopes to effectively thwart the next terrorist attack. Hence why they close this long passage with an admission that conjectural reasoning so often results in failure. But they are also careful to note that such failure is also reproductive of the regime of knowledge itself. Uncertainty begets uncertainty; and the world of counterterrorism continues growing in response.

[132] Aradau and Van Munster 2011, 35.
[133] Hence their view that conjectural reasoning operates within a logic of "reality as double" (Aradau and Van Munster 2011, 32).

As a result the thesis of conjectural knowledge produces a rich conceptual context within which to understand an entire *dispositif* of security practices and beliefs.[134] Despite wanting to associate themselves more closely with a Foucauldian logic of strategy that allows incommensurate kinds of information to remain distinct, they remain focused on the primacy of expert knowledge, and less with the further-reaching implications that I deal with (in Chapter 4) below, thereby somewhat ironically limiting the range of knowledges that might be held apart by such a provocative conceptual tool.[135] While Aradau and Van Munster are concerned with the problem of uncertainty relating to indeterminate futures, in fact because their object remains traditional western security studies and its practical object – security experts and actors – Aradau and Van Munster cannot move beyond the problem of expert knowledge. In other words, their focus on security professionals illuminates the aporia of uncertainty in the sense that their work exposes the centrality of non-knowledge in the activity of security provision.[136] Yet this approach also leaves the problem of future catastrophes unnecessarily weighted toward terrorist attack, but more importantly it makes the concern for future catastrophe only important if we are trying to understand the motivations of security professionals.[137]

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[134] Aradau and Van Munster 2011, 124. I elaborate on the *dispositif* at length in Chapter 4, while also making reference to a long list of others who make use of this concept as well in the context of thinking about security and survival.

[135] This aporia is most clearly gestured towards in the introduction of the book, when they write: "Confronted with the catastrophic event, expert knowledge needs to tackle its very limit: the unkown." Aradau and Van Munster 2011, 6.

[136] Aradau and Van Munster 2011, 6.

[137] I.W. Holm has two interesting essays that speak to the effort to reach beyond the security establishment and consider such discourses in how they affect cultural production. See Holm 2012a and 2012b.

Hence, the problem of, as they call it, a "conjectural style of reasoning" (producing a blend of Hacking with Ginzburg), might make sense as a mode of trying to understand the quasi-scientific motive of planning for futures still unknown. But it tells us less about trying to understand the future as a broad harbinger of death and destruction as is gestured toward when "catastrophe," and not "terrorist attack," is spoken. Aradau and Van Munster choose, rightly I think, the conjectural style of reasoning when addressing the behaviors and motives of people whose mission is to make calculations about future attacks, whose decision making is beholden to gathering massive amounts of data for the purposes of a mode of quantitative analysis often deployed in (or outside of government, as is the case with think tanks). But they are dismissive of other concepts that might help a reader to build out more broadly to the generalized concern for future catastrophes that takes place animatedly amongst both security professionals and the public alike – especially the notions of fictionalizing and imagination, most broadly conceived. What they occlude in their focus on conjecture – their dismissal of imagination – they note in precisely the moment that they call it inadequate to understanding imagination itself: that imagination connotes "a distance from scientific knowledge" that they themselves have already noted escaped the praxis of security professionals themselves in advance of 9/11.

To be clear in closing this section, so much of the ink spilled to understand transformations in security culture post-9/11 focus only on the impetus brought forward by the notion of uncertainty. What Aradau and Van Munster, who have written the first dedicated book-length study on the political problem of catastrophe, manifest is that what

beginning from the problem of uncertainty (as a natural progression from risk analysis and management) accomplishes is necessarily a focus on security practitioners who configure their work in regard to what they do not know. Their book succeeds, in fact is yet unmet in its accomplishment, in this regard; but it is hardly a work adequate to its title, *Politics of Catastrophe*.

Politics of catastrophe necessarily spring also from indeterminacy, leaving many to question the adequacy of knowledge, but also leaving room for substantial engagement with the ontological question of change and contingency *outside* of the concerns of security professionals. Hence, their subtitle, *Genealogies of the Unknown* makes more sense, because it is a book that refines and refreshes our understanding of how those whose professional responsibility it is to cope with indeterminacy *question themselves and their own inadequacies*, which can only reflect back upon the aporias of their expert inadequacies rendered crystalline by their lack of complete knowledge.

But this should not define the limits of a politics of catastrophe, which ought to take as its point of beginning the ontological reality that the future is undetermined, first, and erect a theory of politics that is broad enough to at very least speak to the broadest range of ways that such a reality recomposes basic questions of politics itself. In other words, the most important book on the subject of catastrophes in recent memory organizes itself around the concept of "the unknown" as a configuration of uncertainty. The book itself advances the nascent field that studies the politics of catastrophes exponentially, but the epistemological constraints of "the unknown" enforces a particular discourse that narrows the range of discussion. Part of what this chapter tries to achieve is

to broaden the landscape of questions and politics surrounding catastrophe by insisting that the ontological elements involved, not only in catastrophes themselves, but also in the politics of preparedness, security, and scholarship surrounding "the coming catastrophe" are richer and more complex when viewed ontologically as well.

V. Uncertainty and Indeterminacy Blurred: The Future of "The Coming Catastrophe"

I have shown above the conceptual currency carried by the notion of uncertainty. Here in this section I aim to revisit the importance of the ontological (indeterminacy) elements in order to reinvest it in, and add conceptual force to, the prevalent idea of "the coming catastrophe." In an effort to elaborate the salience of the coming catastrophe as a political concept, I return to Jean-Pierre Dupuy in an attempt to conceptualize what shifted and what remained constant about considering future catastrophes.[138] In part I have already begun to argue that there is a kind of sleight of hand that occurs between "uncertainty" and "indetermination" where imagining (epistemological) future catastrophes seems to take priority over the material conditions of ontological indetermination. But it is worth noting and I will elaborate further that this is a tricky question: uncertainty always refers to the ontological question of indetermination, and the indeterminate nature of causality (ontological) provokes questions of uncertainty (again, epistemological). So how do they interrelate?

The point is to show what has been obscured by the disproportionate attention to uncertainty: That the ontological capacities of future events, or the force of

[138] Dupuy 2005, 2007 and 2009.

indetermination has a force of gravity in shifting the relationship between the ontological and epistemological when thought attempts to conjure future events yet to unfold. With respect to human survival the stakes of this discussion reflect the need for a concept, as I have said, of "the coming catastrophe" as a complex political phenomenon that reflects not only the practical problems of governance, but also their relationship to the more philosophical concepts of knowledge/certainty and material causality/determinacy. As subsequent chapters will show, these concerns ought not be solely confined to the world of security professionals and their practices; yet even in their expansiveness they remain entirely political.

In an important paper, Ben Anderson argues that the future, while remaining undetermined, is not as "open" as some might think.[139] In fact, especially when it comes to security operations, the fact that the future lacks predetermination is a causal mechanism both of the future itself, but also of the present. He writes:

> …processes of securing generate excess, that is they open up futures. Invoking a future that cannot be predetermined, that escapes being fully known, is integral to the invention, deployment and legitimation of forms of security. This argument follows from another – that "the future" is an effect of specific relations and acts. How the future relates to the past and present will vary and does not pre-exist specific processes of securing and forms of security. With the result that the key tasks for work on security, the event and future is… to describe how "the future is disclosed and made present."[140]

According to Anderson, imagining the future – in all of its indeterminacy – legitimates security practices themselves. This is to say that, in a way, indetermination underwrites security practices in a tautological loop. As security practices continue to function, they invoke the indeterminacy of future events, and at the same time claim security practices

[139] Anderson 2010a, 228.
[140] ibid.

as the solely legitimate arbiter of protection against such events. Hence, the tautology goes, "'the future' is an effect of specific relations and acts," by which he means the future is constituted by actions in the present. Yet, this is only to bear witness to one sort of effect – the effect that the notion of the future has on security professionals and practices themselves. The logical conclusion of Anderson's formulation is that "the future is disclosed and made present," but what he does not say is that it is made present as an effect on security professionals and practices themselves. This theme recurs in this literature and the tautology tightens the more the emphasis is placed on security practices and the practitioners themselves.[141]

In order to shift the emphasis both onto the future as a concept pregnant with meaning in its own right, as well as to a more general view, it is important to ask of thinkers like Anderson a particular question. When "the future is disclosed and made present," to whom is it disclosed and made present? There is an important way that activities in the present unfurl and alter the landscape of what we often refer to as "future events." How is it that expansive institutional activities can be accounted for within the same – or at least similar logics – of causality? I will not offer yet an attempt to answer this series of questions. But for now I want to keep the focus on the relationship between knowledge and material causality in order to reissue the discussion of the coming catastrophe.

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[141] Anderson develops his argument with reference to performative strategic games utilized by the RAND Corporation in order to game out a "catastrophic nuclear explosion" as carried out by an hypothetical terrorist organization (Anderson 2010a, esp. 231-34). See also Aradau and Van Munster 2011; Lakoff 2007 and 2008; Collier and Lakoff 2008; de Goede 2008; Salter 2008

The epistemological question of uncertainty broadens the complexity of the issue of definition. Even more so because so many contemporary accounts of catastrophe and security develop their arguments on the premises of the "unexpected" or, more often, from the perspective of a critical disposition to "uncertainty." So much of the response to an "uncertain" future results in projects to "think the unthinkable" that there is reason to mull the relationship between the improbable and the indeterminate.[142] Strange, it should seem to Anderson, that such responses reflect less on the material impacts of the results of the question. Moreover, often there is an abundance of information that points toward some sort of event, yet people – security professionals and the general public alike – find themselves unable to believe it, or feel the urgency of what should seem imminent.[143] Here is Jean-Pierre Dupuy, the preeminent philosopher on the subject in France, describing a haunting feature of catastrophes that have not yet occurred, the very object of so much critical and practical obsession:

> The terrible thing about a catastrophe is that not only does one not *believe* it will occur even though one has every reason to *know* it will occur, but once it *has* occurred it seems to be part of the normal order of things. Its very reality renders it banal. It had not been deemed possible before it materialized, and here it is,

[142] Kahn 1962a and 1985 are the practical reference points on this concept. Stevenson 2008 interprets the effect of Kahn's work. See also Ghamari-Tabrizi 2000 and 2005.

[143] Dupuy argues, even though we almost always cannot anticipate the undetermined future, that it is imperative to act as if we could project ourselves into it in order to add salience to what may come. Describing this as a "new metaphysics" of "projected time" [*temps du projet*] Dupuy suggests that a main part of the problem with the damage that humans do to their habitat is precisely because humans do not believe in the future that may come (Dupuy 2005, 11.). This is discussed exhaustively in Chapter 5, but for now, the immediate question remains relevant: Even when there is adequate knowledge to determine that something terrible is somewhat probable, people often don't *believe it*, in part because they think the uncertain, while possible, is both largely avoidable and simultaneously therefore *im*possible. In short, the uncertainty that leads to disbelief can only be remedied if we can first "render credible" its ontological reality as the future (17). In what follows, I inch toward explaining how that can possibly make sense in the context of thinking future disasters.

> integrated without further ado into the 'ontological furniture' of the world, to speak in the jargon of philosophers.[144]

The second half of this passage points toward a strange temporal causality inherent in imagined catastrophes. On the one hand, a future catastrophe, in order to be truly catastrophic, must be unthinkable prior to the event. It must have elements which were formally inconceivable and therefore truly beyond total understanding prior to its emergence.[145]

The point, to caution against objections that of course we can think hurricanes, and of course there is a general concern for terrorist attacks, is to say that the phenomena that are imagined are indeed *thinkable*, but only categorically. Their specific determination remains shrouded by their indeterminacy. In this sense, a catastrophe isn't about un*certainty* at all; it is, taken *all together*, un*thinkable*. This partial unthinkable feature is from where its spellbinding awe in uncertainty originates. On the other hand, the surprise of a catastrophic event results from a strange transformation where something unthinkable, because it was thought impossible, transforms suddenly into a possibility after the event.[146] The implications of this second feature points to the ways that catastrophic events often exceed the capacity to be thought in their ontological reality before the event; but also the ways that the occurrence of a catastrophic event ushers in

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[144] Dupuy 2008, 11

[145] This insight is reflected in the previous section, when I argued that at least in terms of speculations about future catastrophes in the professional world of security professionals, that risk analysis has been supplanted somewhat by imaginative activities: whether in scenario-based exercises (Lakoff 2007 and 2008; Collier and Lakoff 2008); or the deliberate reconfiguration of speculative strategy as is the case in conjectural reason (Aradau and Van Munster 2011); or in staging imagined events (Anderson 2010a); or in broader, less clearly defined, self-imposed (or externally imposed) sense of urgency to undertake imaginative practices (de Goede 2008; Salter 2008).

[146] See also Dupuy and Grinbaum 2005.

new aspects of reality, new ways of thinking, new strategies for life in the present after the event has occurred, which also speaks to failures of anticipatory thinking and activity; and, likewise, new categories (and category errors) are produced in relation to this cluster of problems for human security.[147]

The key distinction here is between the ontological status of a catastrophic event and the epistemological status of considering an event. If one says for example that something is catastrophic because it was unthinkable, this claim strangely refers actually to an ontological question: It was unthinkable precisely because it was not yet determined (ontologically). Conversely, if someone remarks that an event wasn't yet determined, this can only be because the subject had no knowledge of the event before it occurred. It is the incapacity to think ontological determination that gestures toward the fact that indetermination is an epistemological question. Put more straightforwardly, the event of catastrophe manifests in the present precisely at the moment when *the unthinkable becomes possible, and the impossible becomes thinkable*.[148]

In other words, catastrophe in the present is the moment when order is overturned and political reality is altered. This definition of catastrophe extends itself to the extent that new persuasions of possibility are rendered real, and the newly possible of what can be thought show themselves as not only possible, but also present. All of these considerations bear on how the future becomes present when catastrophe occurs, but also

[147] This point seems closer to Anderson 2010a, yet differs importantly in its construction because of the ways that Anderson insists that it is through practical exercises that the causal change comes to be. For Dupuy it is dependent either on the event, or upon a discursive ruse emplaced in a transformative and novel metaphysical approach to time and indetermination.
[148] Hence why so many thinkers will insist that catastrophe operates as a rupture to space and time. See Ophir 2010, 61; Vázquez-Arroyo 2013, 741-43; Vázquez-Arroyo 2012, 212; Neyrat 2008, 35; Aradau and Van Munster 2011, 3 and 10-11.

the ways that, so long as the catastrophe remains in the future, it has no reality in the present. When considered as a future event, the imaginative element of "the coming catastrophe" carries with it a force that renders the onto-epistemological entanglement all the more pronounced.

Jacques Derrida is instructive in this vein. He makes a distinction between the uses of the French words *futur* and *avenir*, each signifying "future." For Derrida, the *futur* is the anticipatable, the imagined, the predictable, the *futur antérieur*.[149] *Avenir* (*à-venir*), the to-come, carries a different connotation: "That which is *to come*, which comes to us from somewhere else, a place we don't know or can't foresee. One step ahead is darkness, and the abyss."[150] This might seem a small act of jargonous distinction, but what separates the two concepts are their relation to knowledge as imagination, and indetermination respectively. *Le futur* presents the future as an embodied knowledge, as a representation resident in acts of foresight and preparation, as a product of thought in which we imagine what will come as a species of projective thought. *L'avenir*, on the other hand, that "to come," blinds us, or "comes from somewhere else," precisely *not* because it is what we hadn't really imagined: but because it is the unfolding of indetermination in real time. Where future expresses knowledge; the to-come expresses ontological duration, irrespective of human knowledge.[151] When the two collide, when the embodied future being chased by agents beholden to uncertainty come together with the surprise of a future not yet determined (*avenir*), the future catastrophe becomes at

[149] Relayed in the film *Derrida* (Dick and Ziering Kofman 2002) and discussed at length in Klein 2008.
[150] Klein 2008, 175.
[151] Klein 2008, 175.

once an object created by knowledge without ontological reality of its own, and something yet to be. When, and if, the future catastrophe ever becomes a present event, therefore, it cannot be but surprising. Its ontological element (the to-come; *avenir*) is *necessarily* separate from thought, which painted their own portraits, that in turn had their own realities separate from the event understood as "the coming catastrophe."

It is as if the catastrophic event is always "*at once and the same time*…probable and impossible," Henri Bergson wrote.[152] It is the event that seems as if it couldn't possibly occur because it exceeds human capacities to think it. Yet it is probable because the category of catastrophe makes likely that *something* overwhelmingly disastrous will occur – the linkage between the speculative process of thinking and the ontological duration of time allows humans to consider the possibility, but never the certainty, of future evens. The event of catastrophe, and consequently what to do about it, or how to secure against it, exceeds human temporal and causal capacities to place within reason that very phenomenon which must be unthinkable in order to carry with it the force of an impossible future becoming the reality of the present. This is why so many people make the error in thinking that it is the "future coming to govern the present": it is not.[153] It is

[152] Henri Bergson quoted in Dupuy 2009, 11

[153] This is an extremely important trend in political writings that concern catastrophes and complex emergencies such as disaster. There is an obvious component of temporality in any discussion of future events, but a common trend is to either attribute agency to the future—"the future governs the present"—or to reflect on a transcendent formation of political action in which action *x* acts on *y* in the future. My argument is opposed to Aradau and van Muenster who embody the second sort of argument because it misses the point of politics existing in the present despite whatever preoccupations of when the effects of politics might occur: "Despite its increasing role in public and professional discourse, catastrophe needs yet to be unpacked as a specific problematization of securing the future" (2011, 3).

the reality of the enduring present becoming possible – necessarily as separate from how it was imagined. It is the indeterminate, finally, *having been* determined.

Anticipatory security therefore, at least when dealing with future catastrophes, can't really be about risk, or rational choice, in the calculative sense, for that matter. Dupuy continues:

> As an event bursting forth out of nothing, the catastrophe becomes possible only by "possibilizing" itself… And that is precisely the source of our problem. For if one is to prevent a catastrophe, one needs to believe in its possibility *before* it occurs. If, on the other hand, one succeeds in preventing it, its non-realization maintains it in the realm of the impossible, and as a result, the prevention efforts will appear useless in retrospect.[154]

What all of this boils down to is to say that the catastrophe "creates the possible at the same time that it creates the real."[155] The possible falls into the category of ontological status, and the real into the area of thought (epistemology). And this combination, when brought back from philosophical rumination and placed firmly into the materiality of protecting human life and infrastructure from the sweeping movement – the emergence of a new state of affairs – of catastrophe, that the project of anticipating catastrophe gains new levels of importance when considering the persistence of human life in a very unstable set of political, environmental, and biological systems.

The challenge to anticipatory security conjoins two paradoxical elements. One side requires knowing success only retroactively (after the event has been prevented) and hence not knowing success at all, given that the impossible never became possible.[156] And the other side anticipatory security relies on the necessity to believe in what cannot

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[154] Dupuy 2008, 11
[155] ibid
[156] Dupuy calls this the Paradox of Catastrophism. See Dupuy 2005, 17. This is a central motif of Chapter 5.

be believed – that the impossible is imminent – which is to say that the future must be fabricated. Which is to say, it relies on the unthinkable. Or as Derrida once put it: "What comes to pass, as an event, can only come to pass if it is impossible. If it's possible, if it's foreseeable, then it doesn't come to pass."[157] Which means in the end that security against future catastrophe must be at worst a form of imaginary politics and at best a form of writing.

VI. Conclusion

The "coming catastrophe," to the extent that it envelops a wide array of future events inclusive of terrorism and other surprise acts of violence, all manner of "natural" disasters, economic crises, pandemics and plagues – in short, all imaginable cataclysmic futures – clearly encompasses conceptually a future that is not yet determined. The emphasis placed in literatures concerning the coming catastrophe, in prioritizing uncertainty, strangely expresses an intrinsic symptom of existing in a present so transfixed with such futures.

It isn't that we ought not think of the inadequacies of human knowledge when configuring means of survival. But an interesting question persists about efforts to perfect knowledge in the light of uncertainty obscures the very productive mechanism that animates such problems. That the future is not determined should surprise no one. That we fear what it might bring for failure of our enlightened capacity to outflank it should cause some alarm. Why, for example, would not it seem to the observer a form of

[157] Derrida 2007, 451. Also cited in Anderson 2010a, 227, though clearly our readings differ in the implications of how we deploy this idea.

madness that the struggle against uncertainty does not unnecessarily focus attention on generating knowledge when time and effort could rightly be dedicated to reconfiguring actual states of affairs so as to mitigate the potentials of what might come? Does the dedication to uncertainty not reproduce a certain form of reactive behavior, in which the production of knowledge of potential future revisits the present actor, shifts her behavior and, as such, reduplicates uncertainty? To be clear, the invective against the obsession with uncertainty creates a reactive mode of security. The emphasis on uncertainty in fact reproduces the will to security rather than, for example, proactive measures to stabilize political states of affairs, to mitigate climate change, to ameliorate poverty, etc.

The contemporary style of thinking about future catastrophe is as a result more opaque, and yet still more given to the logic of uncertainty – how to cope with it, how to reduce it. Much of this expansive literature is encapsulated by writing for the policy world, and audiences in business management. But critical work that articulates the politics of disaster and catastrophe, from hurricanes to terrorist attacks, also follow suit. In this chapter I reviewed the dominance of uncertainty about future catastrophes in political theoretic writing over the past half century, and one which bears its marks in the present, tying together a fear of a world completely carbonized by total nuclear war to a more generalized form of terror resulting from futures still unknown.

The coming catastrophe clearly occupies a central position in concerns about the future, especially with reference to efforts coping with the nature of human survival in an era thought to be defined by extreme volatility. But in deploying it as a concept – even when simply spoken in casual conversation – the coming catastrophe's epistemological

expression refers so often mostly to inadequacies of human knowledge. Uncertainty, as perilous as it might be, animates enunciations of the coming catastrophe; the future cataclysm and our failure to know it merge and nearly mean the same thing. But the catastrophe to come, to the extent that it will arrive, carries an existence that must be registered at the ontological level as well. When we say "the coming catastrophe," we must be reminded that the concept itself blends together different elements of knowledge and of existence – even when the existence of the event lies somewhere in the future, rendering it only a matter of (im)probability. Most importantly at the conceptual level, it should not go unsaid that the notion of the future catastrophe ought remind us that the inadequacies of knowledge refer in this case to the indeterminate; and the indeterminate encourages knowledge. Without this transaction the question of security makes little sense at all.

All of this will carry on in the chapters that follow, sometimes explicitly, and sometimes as a reverberation. But the ontological force of the coming catastrophe gains particular gravity in the next chapter. There I will examine another element of this discourse that, rather than obsess over the incapability of human knowledge to fully grasp the future, a popular and pervasive trend has emerged that *fully accepts* the inadequacy of knowledge and focuses, instead, on rendering societies more prepared for the inevitable – if yet undetermined – catastrophe to come. The discourse emphasizing resilience carries with it different problems which will be fully explored in the following pages. But in closing this chapter and turning to another avenue of inquiry, it bears repeating that the prominence of uncertainty is not all encompassing; some have foregone the possibility of

adequate knowledge, nearly, altogether in preparation for an increasingly dangerous, and seemingly inevitable, future.

2

From (Pro)Action to Reaction to Acceptance: Logics of Resilience

I. Introduction

This chapter reveals that resilience operates contrarily to many of the future-oriented formations of security that I discussed in the previous chapter. Where so many of the discourses and practices identified there preoccupy themselves with the relatively impossible task of outflanking the future, here I show that resilience marks a remarkable departure from such enterprises. As Evans and Reid argue, resilience introduces an abandonment of security.[1] I argue that where risk assessment (as calculative enterprise) and anticipatory models (incorporating more conjectural styles and imaginative processes) seek to *avoid* or protect against specific potential disasters, resilience *accepts* the inevitability of many potential disasters all at once with the hope to persevere.[2] But it

[1] Evans and Reid 2013, 87-91. Claudia Aradau makes a similar argument read through the lens of Arendt and Nietzsche, but rather than a mere "abandonment" of security, Aradau insists that resilience threatens the very underlying principle that governments offer a "promise of security" (Aradau 2014, 83-7). This discussion is revisited in the final substantive section below, where I build from Aradau's thesis to a more cutting interpretation of resilience with reference to Evans and Reid's recent book, *Resilient Life: The Art of Living Dangerously* (2015).

[2] I will show below that the resolve that systemic disruptions are inevitable and "will take place" is an inherent part of resilience theory. For example, see Kaufmann 2013, 55.

does not do so equally for all within its reach. In sum, I argue that resilience marks a departure from anticipatory strategies of protection to acceptance of inevitably destructive futures; or, from (pro)action in the sense of active programs to stop disasters from occurring, to reaction as an anticipatory activity all of its own. This argument is especially important because it helps to show the pervasiveness of the practical response to "normal catastrophes" as argued in the next chapter.

Resilience has become a keyword and conceptual mode of contemporary security practices, drawing from a range of other fields, typified by the United Nations Secretary-General's High-level Panel on Global Sustainability report *Resilient People, Resilient Planet: A future worth choosing* (2012) which argues for a global project of "sustainable development" that "eradicate(s) poverty," "combat(s) climate change," among other challenges while "building resilience through sound safety nets, disaster risk reduction, and adaptation planning."[3] In this short series of quotations one can read the symptoms of two important registers of resilience thought for practical considerations.

In the first one sees clearly how a diverse range of phenomena are unified and encompassed as not only possibly addressed by resilience, but also in the *same regime* of resilience. This is because resilience theory aims to reduce vulnerability of a system, not its particular vulnerabilities.[4] Secondly, one sees the ways that vulnerability is addressed not through preventative measures, but through preparing for inevitable disequilibrium.[5]

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[3] United Nations Secretary-General's High-level Panel on Global Sustainability 2012, 6.
[4] Adger 2006, 269.
[5] See Lakoff 2008 for an analysis of this language in a different sector of security thinking. In his own work, and his collaborations with Stephen Collier, the general argument that can be construed across their work represents a shift in U.S. security policy, as they put it in numerous places, as a shift from prevention to preparedness (Collier 2008; Lakoff 2006,

"Safety nets, disaster risk reduction, and adaptation planning" refer to increasing the possibility to survive and sustain loss, not prevent it. But safety nets, risk reduction, and planning for whom? Resilience theory contends that the answer is "all." Even many of its critics are romanced enough by this argument to see in it a homogenizing capacity. Toward the end of this chapter I will try to show how it might be intended for all, but in a very different light than is normally assumed: in a way rendering the human world more vulnerable through a re-generalization, a perverse universalization, of the post-colonial condition.[6]

In contradistinction to what Aradau and Van Munster call the "P-modes of knowledge," pursuit, prevention, preparation, and protection (to which can be added precaution, preemption, and others), resilience assumes the worst is likely – at least in terms of what it reacts to.[7] Partially accounting for a strategic shift between calculative risk assessment and imaginative practices, the last chapter showed how one model of anticipatory security aimed to create knowledge about uncertain futures with the hopes of preventing the worst-case scenario. Risk assessment and speculative practices are constructed by way of probabilities and trying to gain strategic advantage against coming events.[8] Resilience operates differently. Resilience attempts to engineer measures of adaptability and mitigation that take priority over the presumed stasis of risk thinking.[9] Yet, as Walker and Cooper have shown in their landmark critical genealogy of resilience,

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2007, 2008a and 2008b; Collier and Lakoff 2008a and 2008b). These arguments preoccupy a central motif of the next chapter, so I will not further develop them here.

[6] I follow Ranadir Samaddar (2015) in this portion of the argument.

[7] Aradau and Van Munster 2011, 33. See also de Goede and Randalls 2009; Anderson 2010b

[8] Bernstein 1996.

[9] Holling 1973.

the initial techniques of resilience were not only drawn from engineering and ecology, but also from neoliberal economic theory.[10] So one key critical approach to resilience policy has been to critique it from the perspective of neoliberalism and its attendant governmentality, and as such this line of thinking insists that resilience is a developed enough form of neoliberal governance that resistance to it has been subsumed or weakened substantially.[11]

All of this is to say that there is no single predominant definition of resilience.[12] Ben Anderson, in a searing response to a special issue of *Politics*, argues that the critical approach to resilience overlooks its many different iterations, to the extent that it overdetermines the range of practices, theories, and expectations given to and carried within the concept.[13] For Anderson the idea of resilience as buzzword points to not only a reification of theories arguing about its principal effects – namely influencing contemporary subjectivity, and its oft argued inherent link to neoliberalism – but it also distorts the force of security politics and its critics.

This is a welcome critique, not least because so much of the writing concerning the idea of resilience seems to tread such similarly trodden ground. Here I want to acknowledge the usefulness of that criticism – that we do not approach resilience through convenient lenses in order to reduplicate already existing theories for which scholars seek new and exciting objects. That said, in this chapter I engage closely with many of the thinkers Anderson criticizes, not to take their mistakes more seriously, but to read across

[10] Walker and Cooper 2011, 148-152; Several excellent critiques of this have been raised. See for example, Corry 2014 and Nelson 2014a.
[11] Neocleus 2012; Reid 2012; Joseph 2013; Nelson 2014a and 2014b.
[12] Anderson 2015.
[13] Anderson 2015, 63-4.

their strengths. In doing so, I hope to localize an important feature of resilience *discourse*: that it hones in on an important trend in thinking about how to survive future catastrophe in ways that thinkers in the previous chapter do not. As such, as the chapter proceeds I will make reference to "resilience." But I am developing an interpretation that, by the end, ought to feel very specific; ought to carry with it the variety of applications with which I have engaged; and will carry the responsibility of operating as a distinguishable concept with an intellectual history that I offer, including important critiques of it, though they themselves vary.

My aim in engaging with this literature is not to turn it on its feet, as Marx once put it with a different object in mind, nor to correct it; but to find within it a logic different from another dominant mode of thought with which I hope to juxtapose it. Which is to say, I aim to find in the discourse of resilience the ways that advocates of resilience themselves, and this applies to many of its critics as well, do not suppose that the future is something that can be formally known. Instead, what resilience acknowledges the near certainty of future failures. This insight is the golden thread that runs through the interpretations below that range several disciplines over the past forty years. And I attempt in the end to show to what devastating effects it has been deployed.

I proceed first by tracing contemporary ideas about resilience to the work of C.S. Holling, whose systems approach to ecology challenged conventional ideas of ecology by challenging how stable such systems really are. For Holling, modes of thinking about ecology that were rooted in quantitative modeling – mostly derived from physics – failed to understand ecological change because they failed to understand the interaction of

systems. As a result, he argued, a new model of thinking qualitatively was necessary in order to build theories that could account for how vulnerable systems were, and to what. Then I turn to recent work attempting to link Holling's body of work to that of Friedrich von Hayek, which in turn allows scholars of resilience to do two things. First, they are able to show the ways that resilience was extrapolated to understanding interactive systems across disciplines; in other words, how economies, ecologies, modes of social and political organization, interact with one another to create turbulence and vulnerability. Secondly, this more unified theory of resilience has fashioned a primary critique of resilience in governance: that it is inherently neoliberal. The following section shows these connections and reviews the most important critiques of resilience from the perspective within the context of neoliberal political economy. I then turn to recent writings, primarily organized by a lengthy engagement with Brad Evans and Julian Reid, who argue that resilience ought to be understood within a logic of abandoning security. As a consequence, they argue, resilience is a force that exposes human beings to hostile violence and increasingly so the more vulnerable a population already was before efforts to secure it in the conventional sense were vacated. I conclude by summarizing the arguments made in this chapter and the previous one in order to reaffirm that there are competing modes of thinking about "the coming catastrophe": one that can be thought of in terms of attempts to prevent it; and one that has already given itself over to its inevitable occurrence. In the end, I spend a moment pointing to the next chapter, which argues that "the coming catastrophe" is importantly unspecific, that the concept renders different sorts of catastrophes abstract; and, in this sense, has become utterly normalized.

II. Origins of Resilience: Acknowledging the Unexpected

Resilience theory holds at its core an acceptance of disastrous future events. At least insofar as disastrous events can be understood through conventional considerations of security – extreme systemic disequilibrium, especially caused by unexpected or surprise events – resilience in its roots models its theory around the idea that systems – whether ecological, social, political, or otherwise – adapt. As a consequence, resilience theory stands in diametric opposition to the calculative aims of theories based in risk quantification, but also those given to prevention, because resilience views the world from the standpoint of the complexly interwoven nature of multiple systems (social, political, ecological, economic) interacting to compose equilibria and disequilibria. As a result it has found itself incorporated centrally into vastly different regimes of both theory and practice ranging from financial and economic policy, psychology, urban and regional planning, infrastructure management, development & aid efforts, public health administration, disaster preparedness, and national security.[14]

The roots of this theory, the narrative goes, derive from the early writings of Crawford Stanley Holling's radical critique of ecological systems theory that had, until his time, been built upon quantitative models adapted from the physical sciences (principally, physics).[15] The problem with the classical quantitative approach was not that

[14] Walker and Cooper 2011, 143; Lundborg and Vaughan-Williams 2011; Duffied 2012; Bourbeau 2013; Nelson 2014, 1; Anderson 2015; Grove 2013 and 2014b; Aradau 2014; Chandler 2014, 1.

[15] I say, "the narrative goes," because in this chapter I focus on the ways that resilience emerged as an end goal of particular modes of security provision. In the literature surrounding this phenomenon, C.S. Holling's body of work serves as a touchstone from which many different fields of interest to this literature found a basis for their work and from

it lacked effectiveness in understanding the world, for Holling, but that it represented a *different view of the world*.[16] For Holling the strength of the quantitative – what I have referred to more broadly in the world of security analysis with the signification "calculative" – is that it excels in considering systems that are more or less equilibrious, and therefore perturbations can be detected, measured, and with the concern in mind that a return to equilibrium is not only advantageous, but possible.[17] Holling views the quantitative approach embodying a worldview in which "individuals die, populations disappear, and species become extinct."[18] Such is the ontological reality driven by an idea of the world-as-system in which variations to equilibrium (what he often referred to with the moniker "stability") – death, disappearance, extinction – are measured, because within this world such effects have measurable causes rendered against a more or less

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which they drew inspiration. Yet readers in the history of philosophy and political theory will notice that many of the impulses resident in resilience theory predate – sometimes by millennia – many of the themes incorporated in Holling's broad thesis: Principally, that systems are interactive, often far from equilibrium, and that species within such systems embody an ontological will to persist despite disadvantageous conditions. I am currently working on an article that searches more deeply in the history of thought for philosophical concepts which excavate earlier and more complex ontological ideas about resilience, which I do not pursue here. That essay involves readings of Spinoza's *conatus*, Bergson's *élan vital*, Niezsche's will to power, Freud's death drive, Deleuze's desire, and Marx's species being and labor power. Many of these arguments would be germane to such a project, but in the present chapter the aim is to hedge closely to the narrative about the place that resilience occupies in contemporary thinking about security (and its attendant concerns) toward the end of substantiating my main argument: That – quite different from modes of security considered in Chapter One, where anticipatory forms of thinking aimed to prevent or outflank indetermination – in the present chapter I portray resilience as a different world view. In the view of resilience theory, I argue, future calamities defy expectation and we should expect them to; as a result, resilience marks a sophisticated acceptance of future catastrophe, rather than an effort to prevent it.

[16] Holling 1973, 1.

[17] Chandler 2014, 8.

[18] Holling 1973, 1.

static vision of systems equilibrium.[19] In other words, in the quantitative view one can only measure occasions which demonstrate irregularities to the harmony of the system itself: "With attention focused upon achieving constancy, the critical events seem to be the amplitude and frequency of oscillations."[20] "But," Holling continues,

> …if we are dealing with a system profoundly affected by changes external to it, and continually confronted by the unexpected, the constancy of its behavior becomes less important than the persistence of the relationships. Attention shifts, therefore to the qualitative and to questions of existence or not.[21]

The central problem that resilience theory sought to address in its beginnings in systems ecology, to be clear, was that conventional systems theory viewed systems as analytic objects that were more or less static.[22] When considering more complex relationships – between pollution, overpopulation, and ecosystems for example – one cannot assume an equilibrious system, nor can one measure from a controlled formal model.[23] Moreover, stability in a system is not only infrequent. Its opposite is not necessarily instability, but multiple modes of stability (multistable states). This clarification leads one not to oppose stability-security with instability-insecurity, but the idea of stability with stasis and the idea of resilience with vulnerability more broadly conceived.[24] So, for Holling, to approach systems upon which human beings (and other species) rely for their survival in the former, quantitative sense, was not only methodologically flawed from the perspective that it advocated a world view which underwrote practical approaches to

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[19] Kevin Grove elaborates similar claims within the context of a biopolitical critique. See Grove 2014, 615.
[20] Holling 1973, 1.
[21] ibid.
[22] Walker and Cooper 2011, 145.
[23] Holling 1973, 3-6.
[24] Holling and Gusterson 2002, 50.

precisely the wrong problems – it also failed to understand the causal complexity leading to important events. Here is Holling drawing the comparison out within the context of ecological management and potential extinction events:

> The resilience and stability viewpoints of the behavior of ecological systems can yield very different approaches to the management of resources. The stability view [which I have emphasized as quantitative and calculative] emphasizes the equilibrium, the maintenance of a predictable world, and the harvesting of nature's excess production with as little fluctuation as possible. The resilience view [Holling's view] emphasizes domains of attraction and the need for persistence. But extinction is not purely a random event; it results from the interaction of random events with those deterministic forces that define the shape, size, and characteristics of the domain of attraction.[25]

Here we see the juxtaposition between the approaches most clearly. The stability approach, operating from an assumption of a relatively static set of phenomena, enabling it to view the world in such a way where disruptions to that stasis are profoundly problematic for modern conceptions of mastery and management.[26] One can extrapolate from this very clearly to the missions of anticipatory and preventative modes of human security. The resilience approach conversely recognizes ontologically at least that the level of complexity leading to important events exists importantly *not* at the level of

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[25] Holling 1973, 21.

[26] Here I have in mind Descartes' provocation, well before Marx's Thesis Eleven, that philosophy ought to point itself in practical directions (Marx 1976, 3-5). Descartes wrote in 1637: "…it is possible to arrive at knowledge that would be very useful in life and that, in place of that speculative philosophy taught in the schools, it is possible to find a practical philosophy, by means of which, knowing the force and the actions of fire, water, air, the stars, the heavens, and all the other bodies that surround us, just as distinctly as we know the various skills of our craftsmen, we might be able, in the same way, to use them for all the purposes for which they are appropriate, and thus render ourselves, as it were, *masters and possessors of nature*" (Descartes 1998, 35; my emphasis). See also Nancy 2012, 33-39 for the complex problematization of the ways that the nuclear problem – both in terms of clean energy and weapons demonstrates a paradoxical "mastery over nature [*maîtrise de la nature*, 36]," including the survival (or peril) of human beings after Hiroshima, Nagasaki, and Fukushima. Dupuy 2005 deals with many of the same issues confronted by Nancy six years after Dupuy's book first appeared in French, though Nancy does not cite it.

discrete disruption, but at the level of the interaction between different spheres of activity; or, more precisely different affective systems.[27] "What Holling seeks to define, instead," write Jeremy Walker and Melinda Cooper, "is a complex notion of resilience that can account for the ability of an ecosystem to remain cohesive even while undergoing extreme perturbations."[28] The classical approach, given to systems stability cannot fully grasp the effects of systemic disturbances nor, frankly, for Holling, the full complexity of their causes.

As a result, the stability approach, when it comes to practical questions of management may often lead to adverse consequences.[29] From Holling's point of view the ontological question of where one begins – from a more or less stable view of the system or from a view that, at best, it is multistable – not only do we derive different data, we also will tend to act differently toward stimuli and affective capacities. Put clearly, at stake is the potential for massive failure because we misconceive of the system we seek to manage. If one begins from the principle that a system is stable, one will likely act in order to quash or quell disruptions in that system. If one begins from a point of view that the system is inherently unstable in relation to other more or less unstable systems, then more caution must be exercised in the practical realm. Holling elaborates this in view of mistaken ideas about the nature of systems themselves:

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[27] David Chandler approaches resilience and its complex systems interaction theory excellently in his recent book (2014). See especially Part One.

[28] Walker and Cooper 2011, 146.

[29] I review some of the hallmark questions of "unintended consequences" in Chapter Four. These may be of service to unpacking some of the critical edges of Holling's appraisal pointing towards the inadequacies of the stability-quantitative approach. But, in order not to digress too far from the question of how this relates to security theory, I will not belabor those ideas here. Interested readers should direct their attention to the beginnings of §IV (Chapter Four).

> The very approach, therefore, that assures a stable maximum sustained yield of a renewable resource might so change these deterministic conditions that the resilience is lost or reduced so that a chance and rare event that previously could be absorbed can trigger a sudden dramatic change and loss of structural integrity of the system. A management approach based on resilience, on the other hand, would emphasize the need to keep options open, the need to view events in a regional rather than a local context, and the need to emphasize heterogeneity.[30]

If the goal is resilience – which is to say the mitigation of vulnerability and the survival of a (any) complex system, then those who operate from the ontological standpoint of stability can make massive mistakes for simply not seeing the trees for the forest, and the forest's place in relation to other systems, as it were. The resilience approach, to the contrary, attempts to diversify its vision to a litany of affective capacities, and to distribute cause and effect across entire systems. Thus shifting the object from the discrete to the systemic, and shifting the emphasis from disruption to the enduring possibility of the system itself. Holling concludes this passage, and his pivotal essay, in a way that is particularly germane to both this chapter's argument and to the larger scope of the dissertation itself. Telescoping from the science of systems – the principal focus of his paper – to a sweeping statement about the stakes of resilience as a form of knowledge production given importantly to the management of how systems ought to respond to future events, Holling breaks from the often minute language that his writing is accustomed to and offers what can only be summarized as a grand declaration of the importance of such a set of claims:

> Flowing from this would be not the presumption of sufficient knowledge, but the recognition of our ignorance; not the assumption that future events are expected, but that *they will be unexpected*. The resilience framework can accommodate this shift of perspective, for *it does not require a precise capacity to predict the future*,

[30] Holling 1973, 21.

> but only a qualitative capacity to devise systems that can *absorb and accommodate future events in whatever unexpected form they may take*.[31]

Such is the inspiration to incorporate resilience thinking into strategies for considering human survival against future catastrophes, crises, and other forms of disequilibrium upon the social, political, and economic spheres of human life.[32] In a sense resilience theory acknowledges a lack of knowledge: "recognition of our ignorance; not the assumption that future events are expected, but that *they will be unexpected.*" It drives the impossibility of future-oriented thinking to the brink of its reasonable capacity by fiat of its failures to capably understand the complex interactions of systems – which are in and of themselves complexly constructed states of affairs. Walker and Cooper agree: "Under the sign of resilience, this is an approach to risk management that foregrounds the limits to predictive knowledge and insists on the prevalence of the unexpected…"[33] Out of the promises to outflank the future catastrophe, comes a knowledge that at very least the contingent – the accident, the tediously small overlooked detail – emerges not from the failure of attention, but from the general incapacity to adequately know the interaction between systems.[34]

As a response, resilience theory advocates for an entirely different accounting: one which knows what cannot be known, which does not attempt to outthink what cannot

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[31] ibid (my emphasis). Holling makes a similar argument linking ecology and economics in Holling 1982, 8-15. Nelson (2014a) engages with this in an interesting way within the context of arguing for resilience's role in a neoliberal counter-revolution against labor. See Nelson 2014a, 4 and 7-16.
[32] Bourbeau 2013, 8.
[33] Walker and Cooper 2011, 147.
[34] This is also a central theme, though the solutions offered are stunningly different, in Charles Perrow's *Normal Accidents*, which partly inspires the next chapter. See Perrow 1984.

be thought; but instead, to *absorb* and *accommodate* the inevitable.[35] As a result, practical efforts resulting from this epistemological-ontological worldview focus on producing systems capable of enduring what can never fully be anticipated: "[resilience thinking requires only] a capacity to devise systems that can absorb and accommodate future events *in whatever unexpected form they may take*."[36] This insight is precisely why resilience is opposed to vulnerability and not to security. Security presumes protection from disequilibrium; resilience assumes the worst will inevitably occur and asks: Then how can we alter systems themselves so that they, and consequently, we, survive?[37]

In the socio-political world, such systems may be thought in parallel to how Holling conceived ecological systems. Sara Holiday Nelson puts the notion of interactive systems (ecological, socio, political, economic) well when she argues: "Ecosystems cannot be understood in isolation from social systems, and management techniques that enforce stability reduce ecosystem complexity and resilience, generating feedbacks from the environment that threaten social systems."[38] For Nelson, the interactions between multiple scales of complex systems produce and reproduce not only their interactions, but also then the possibility for disruption on one from another. These interactions also reproduce crises internally as well as "between the social body and its environment."[39]

Framed differently, the theory of resilience attempts to account for the complex constitutive properties that challenge life worlds. Nelson's language that I quoted above

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[35] Ibid.
[36] Holling 1973, 21.
[37] A central thesis of many critiques of resilience: see for example Aradau 2014; Anderson 2015; Chandler 2012; Corry 2014; Evans and Reid 2013 and 2015.
[38] Nelson 2014a, 4.
[39] Ibid.

concisely emphasizes the ways that the ecological theory of resilience comes to animate a practical ontological perspective from which the shifted focus likewise animates a litany of interactive effects, especially in socio-economic matters. In fact, Holling's own work trended in this direction when he co-founded the Resilience Alliance.[40] The Alliance aimed to theorize the extension of resilience from conservation ecology to a broad palette of interacting social, political, ecological, and economic concerns.[41] As such, the relatively focused pursuit of resilient systems theory migrated ambitiously from discrete disciplinary application to its now pervasive attraction in nearly countless fields of theory and practice.

III. Resilience & Neoliberalism

In their landmark essay, Jeremy Walker and Melinda Cooper move from the roots of resilience theory in C.S. Holling's early work to its broad operational adoption in economics and security.[42] Despite the fact that Hayek never cited C.S. Holling, Walker and Cooper see homologies in their theories so close that they are able to show the migration of systems ecology into what became known as the Austrian School of economics and its reasonable philosophical inclusion in what came to be known as neoliberal economic theory.[43] What Hayek saw in the period when he accepted the Nobel

[40] The website of the Resilience Alliance shows fairly comprehensively the full scope of their work, which can be read symptomatically as well. The confluence of resilience theory with neoliberal management cannot be overlooked. See: http://www.resalliance.org/
[41] Walker and Cooper 2011, 147.
[42] Walker and Cooper 2011.
[43] Ibid, 147. They note that this fact of inclusion is widely resisted by scholars who overwhelmingly note the contrary influence of the notably less philosophical Milton Friedman. Nevertheless, as they also recognize, Hayek's Nobel Award added considerable

Prize for Economics, which he reflected upon during his acceptance lecture by noting the crises of the early-1970s, argued that they resulted from a profound failure in Keynesian economic policy.[44] Walker and Cooper ascertain that Hayek's resistance to Keynesian policy was on the level of its interventionism, its regard for the aim of regulatory principles to induce equilibrium into markets.[45] They write, "[Hayek] was therefore highly skeptical of efforts to respond to such crises using the very techniques of state intervention that he believed had engendered them in the first place."[46] So for Hayek not simply the oil crisis, but also revolutions occurring in the imperiled colonies of the developed global north – to make little mention of the recent globe-spanning workers rebellions of the late-1960s – had come about at least in part because of a failure to understand the imposition that Keynesian policy had enforced upon domestic realms of

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credibility to his theories and created divisions within the broader economic camp that makes it far from unimaginable that Hayek's general thesis was adopted. They write, "It is more commonly acknowledged that the reigning influence on financial risk and price modeling lies not in Hayek's hermetic philosophy but in neoclassical finance: some combination of Friedman's 'rational speculators,' Arrow-Debreu securities, the Efficient Market Hypothesis or the standardized algorithms of portfolio management software, all of which presume the formal calculability of all relevant states of risk. Again, however, we would contend that a de facto 'division of labor' has established itself between the formalism of equilibrium models, lending the imprimatur of exhaustive calculability to the design of derivative trading instruments, and the implicit cosmology of complex systems theory, which both informs a macro-economic vision of market dynamics in general (witness former Federal Reserve chairman Alan Greenspan's encomiums to the creative turbulence and resilience of US financial markets) and, in more recent times, justifies the implementation of new crisis-response strategies at the institutional level. What unites both camps is the insistence that the distributed computational mind of the market always surpasses the state's ability to process information" (Walker and Cooper 2011, 152).

[44] Ibid, 149. See also Hayek 1989

[45] Nelson (2014a) offers a profound critique of the prominence of Hayek's place in this discourse.

[46] Walker and Cooper 2011, 149.

politics and economics.[47] Such "crises" were only symptomatic of the very disequilibrium already resident in their systemicity.[48]

At stake in Walker and Cooper's argument is not Hayek's well-known distaste for state intervention but a distaste for an arrogance of conventional economics which held that markets could be adequately administered by states; or, for that matter, that such hypotheses could be adequately tested in the actually existing world. This is a profound methodological link to Holling's presumptions about ecological systems. For Hayek, the social sciences in their desire to replicate the presumed indisputably prestigious knowledge production of the natural sciences had erred profoundly in their attempt to understand their own phenomena.

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[47] Walker and Cooper provocatively claim in conclusion that the pervasiveness of resilience in neoliberalism serves to limit critique against it and, hence, is a profoundly depoliticizing regime of power. This spirit of thinking can be linked to Wendy Brown's influential work on neoliberalism that argues, among other things, that neoliberalism is profoundly depoliticizing (see Brown 2003, 2006a and 2015). Sara Holiday Nelson argues to the contrary in a way that I cannot fully pursue here, but is worth noting for its contribution because so often theorists and critics see powerful mechanisms of politics and attribute them with the tools of disempowerment: "Capitalism, like complex adaptive systems, 'feeds upon deviations from normal reproduction'. The expansion of surplus value requires continual innovation. But these forces of innovation are not capitalist in origin – rather, capital must continually subsume external forces of alterity in the service of its own reproduction. This subsumption – as Virno reminds us – is never complete; the potential revolution is present, if only latently, in counter- revolutionary forms. This is, in some sense, a classically Marxian insight: that the potential for system change is immanent to the system (capitalism) itself, as labour-power is both capital and not capital, in the service of capital and irreducible to it" (Nelson 2014a, 6; see also Nelson 2014b). Mareile Kaufmann shares Nelson's concern, but argues from the standpoint that resilience theory in and of itself cannot support such a critique (Kaufmann 2013, 67). Apart from the critique of capital and labor's place within it – and apart from resilience theory itself, for that matter – I address some of these concerns of depoliticization in a different way with respect to Antonio Vázquez-Arroyo (2010) and Aradau & Van Munster (2011) in Chapter Four below.

[48] Walker and Cooper 2011, 149.

In the pursuit of advancement, economists (as social scientists) committed an error of seeking stability in inherently unstable atmospheres: "…the social sciences, like much of biology but unlike most fields of the physical sciences, have to deal with structures of *essential* complexity, i.e. with structures whose characteristic properties can be exhibited only by models made up of relatively large numbers of variables."[49] Hayek portrayed economic principles as akin to natural rules, as in classical liberal economic theory, but introduced into them an order of complexity that was far beyond the tools of comprehension used by his contemporaries.[50] In their pursuit of stability and what was referred to as Maximum Sustainable Yield, Keynesian policies sought to impose order upon inherently complex and unstable systems.[51] As he concluded his acceptance speech, Hayek scaled out to the larger questions of society and management, control and complexity:

> If man is not to do more harm than good in his efforts to improve the social order, he will have to learn that in this, as in all other fields where essential complexity of an organized kind prevails, he cannot acquire the full knowledge which would make mastery of the events possible. He will therefore have to use what knowledge he can achieve, not to shape the results as the craftsman shapes his handiwork, but rather to cultivate a growth by providing the appropriate environment, in the manner in which the gardener does this for his plants. There is danger in the exuberant feeling of ever growing power which the advance of the physical sciences has engendered and which tempts man to try, "dizzy with success," to use a characteristic phrase of early communism, to subject not only our natural but also our human environment to the control of a human will. The recognition of the insuperable limits to his knowledge ought indeed to teach the student of society a lesson of humility which should guard him against becoming an accomplice in men's fatal striving to control society - a striving which makes him not only a tyrant over his fellows, but which may well make him the

[49] Hayek 1989. Emphasis in original.
[50] Zebrowski 2013, 167.
[51] Walker and Cooper

> destroyer of a civilization which no brain has designed but which has grown from the free efforts of millions of individuals.[52]

Thus in his conclusion Hayek makes a final leap from problems exclusively germane to economists and introduces several important elements that bring us from economics, to systems more broadly conceived, to their hopeful application in the governance of socio-political life. Hayek here aimed to deprioritize absolute knowledge and prioritize the mesmerizing complexity of nature – linking internally economic order and the natural order (a link drawn for hundreds of years in classical liberal economics).[53] Accusing his contemporaries of fundamentally misunderstanding the systemic disequilibrium of markets, Hayek made reference to cyberneticist Warren Weaver to claim a literal essential complexity that surpasses human understanding.[54] It is this move that hedges against his contemporaries the most: It should be understood that the state intervention on market forces limits severely the capacities of the entirety of actors composing the market.[55] A key to this understanding is his willful adoption of the science of complexity to maneuver both a new model for economics – based on its fundamental capacity to govern itself as system – and at the same time to introduce a theory that relied not on adequate knowledge, but on the willful limitation of foresight.[56]

Reducing economic vulnerability, in this view, was less about altering structural safety nets as it was about "freeing" the market's capacity to render itself capable of provision. As a consequence, words and concepts like "adaptive" and "systemic" made

[52] Hayek 1989.
[53] Zebrowski 2013, 168.
[54] Zebrowski 2013, 167.
[55] Walker and Cooper 2011, 152.
[56] Ibid.

their ways into practical discussions for how to prepare for, and mitigate the deleterious effects, of future economic crises.[57] But these ideas clearly also migrated to fields concerned with security and survival. Their links to what became known as "environmental security" cannot be understated.[58] They also became enfolded into post-9/11 discourses about national security in ways that, in part, the next chapter will reveal.[59] Their implications for the world of security theory portend alarming implications that are only now being fully engaged.

IV. Abandoning Security: (neo)liberalism revisited

The introduction of resilience into security governance has been widely studied. In practice the fashionable nature of resilience theory means that governments engage broader ranges of actors – communities, non-profits, aid agencies, etc. – with hopes of more fully distributing resources across the political spectrum to ensure greater social responsiveness and mitigate vulnerability.[60] David Chandler in his sweeping survey of the politics of resilience and governance writes: "The key aspects that define resilience approaches to policy-making are methodological assumptions about the nature of the

[57] Walker and Cooper 2011, 151. Hence, also, the fashionable strategies of "stress testing" financial institutions: One common critique of institutions that ought not be permitted to be "too big to fail" should be referred to this literature. The pervasiveness of resilience theory in creating institutions that will endure through crises is in part beholden to the best practices that attach to them as capable of withstanding the stresses of crises, rather than their capacities to avoid causing them.
[58] Coaffee 2008; Duffield 2011; Grove 2013 and 2014b; Walker and Cooper 2011; Zebrowski 2013, are good examples that make use of such a thesis.
[59] Coaffee 2007; Coaffee and Murakami Wood 2006; Coaffee and Rogers 2008
[60] Chandler 2014, 94-5.

world, the complex problem of governance, and the policy processes suitable to governing this complexity."[61]

Together the assumptions of resilience – the (dis)equilibria of systems, encouraging the capacity to bounce back from trouble, the inherent belief that the unexpected is bound to occur – are bound up in important recent transformations in governance. Much of the analysis of resilient governance compelled authors to draw parallels with critical theories of ideology,[62] war,[63] the post-political,[64] governmentality,[65] and biopolitics.[66] The searching problem that so many of these attempts seek to address is how the theory of resilience configures into broader and preexisting systems of governance for which resilience offers a unique solution.[67] Critiques stemming from (neo)liberalism are the most robust – perhaps because of the prominence given to it in Walker and Cooper's exceedingly popular essay from 2011, which I have made much use of here – but perhaps also because in following the rich literature surrounding the concept of neoliberalism, critical scholars are able to ask the question of how political economic innovations have crept into governance and security; but also how their consequences affect contemporary subjects that resilience seems to leave behind. Neoliberalism supplies a vast conceptual language for complementing such ideas.[68] This is because critiques of neoliberal theory enable a constellation of moves – economic and political,

[61] Ibid, 3.
[62] Chandler 2013.
[63] Neocleus 2012; O'Malley 2010
[64] Simon and Randalls 2016
[65] Joseph 2013.
[66] Grove 2012, 2013, 2014a and 2014b; Reid 2012 and 2013; Evans & Reid 2013 and 2015.
[67] Corry 2014, 257.
[68] See for some excellent examples: Aradau 2014; Evans and Reid 2013; Grove 2012; Joseph 2013; Walker and Cooper 2011; Zebrowski 2013.

subject and structure, power and knowledge – to express an incredibly complex array of sociopolitical relations. Consider how Chandler and Reid can so quickly articulate a range of important concepts in a recent passage:

> The human subject is constructed within neoliberal discourse as having to accept that it is not possible to resist or secure him or herself from difficulties (both individually and collectively) but instead learn to adapt to their enabling conditions via the embrace of insecurity and unknowability. Within this framing, the only role for government is that of facilitation and enablement of more adaptive and capable individual choices – a system of techniques and practices of so-called 'good-governance,' held to enable the better and more efficient use of markets and market-based forms of choice-making as a necessary requirement for the instauring of adaptive capacities socially.[69]

In this passage, Chandler and Reid accomplish quite a bit toward establishing a theoretic architecture within which to place the individual subject amidst a neoliberal relation of the state and capital. What they expose so adeptly illustrates how the logic of neoliberalism produces a de facto environment in which the individual him- or herself is located, empowered perhaps, to be the sole navigator of their political environment.[70] The state's role in this view of neoliberalism is merely to assist in the supposed "liberation" of the individual subject, facilitating its self-entrepreneurial mandate toward its own success in the political-economic environment.[71] In short, neoliberalism excels at reifying the individual subject under the supposition that she is master of her own course through life

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[69] Chandler and Reid 2016, 4. Several of my readers questioned whether or not the word "instauring" was a mistake. The word appears in Chandler and Reid, and correctly, if not a nearly entirely obsolete choice of words. It left regular English usage during the 17th century, appearing in Webster's Revised Unabridged Dictionary for the final time in 1913. It derives from the Latin, *instaurāre*, "to renew, repair, erect, establish," arriving in English by way of the 14th century Old French *insaurer* (v.) (see further, Oxford English Dictionary). The word *instaurer* still remains in French, meaning, simply to establish, found, institute, or found, often with the verb's subject being some kind of institution.

[70] This is also argued by others; see for example, Joseph 2013, 40.

[71] Brown 2015, 108; See also Kiersey 2009, 2011, and 2016.

and helps to recondition subjects as adaptive to misfortune by incentivizing their capacities to capitalize on their own uncertainty.[72]

Resilience approaches to security – or, perhaps that is no longer the most appropriate word[73] – in its ontological embrace of contingency, complex systems, and adaptivity, is especially well suited to supplant conventional logics of "defense" of human subjects precisely because of the ways that it acknowledges the precise relationships between uncertainty, the self-determined subject, and adaptivity.[74] Jonathan Joseph puts this well on his way to an excoriating critique of resilience governance in relation to security:

> Resilience fits with a social ontology that urges us to turn from a concern with the outside world to a concern with our own subjectivity, our adaptability, our reflexive understanding, our own risk assessments, our knowledge acquisition and, above all else, our responsible decision making… Indeed a major claim here is that the way resilience works, certainly in Anglo-Saxon approaches, is to move fairly swiftly from thinking about the dynamics of systems to emphasizing individual responsibility, adaptability and preparedness.[75]

It should surprise no one that security professionals and agencies are recognizing the broader range of threats facing civilian populations. But the mode of resilience that Joseph imagines here is reflected in the ways that agencies have diversified their understanding of who is responsible when disaster strikes. In the form of systems theory that I reviewed above, charting C.S. Holling's enduring influence over resilience theory and how it came to animate so many fields of thinking, the way that adherents (and even critics that track too closely his own work) tend to imagine resilience is still within the

[72] O'Malley 2010
[73] Corry 2014 argues against; Adey and Anderson 2012, show how many of these arguments still ought to be thought within a framework of security.
[74] Corry 2014, 267-70.
[75] Joseph 2013, 40.

confines of systems – or structures, if you prefer – but often miss the target of the ways that resilience also acts as a *release* of agencies in terms of culpability.

These claims are doubtlessly contestable, but I introduced them for several reasons. Joseph's point relates the neoliberal status of the individual to the acknowledgement that security institutions espouse resilience. For him, and for me, there are important ramifications of this espousal. It cannot be overlooked that resilience most usually replaces preventative strategies with efforts to buttress the capacities for communities, as well as individuals, to endure calamitous events. This is the sense in which I introduce with sentiments like "release" or "abandonment of" conventional modes of security. I will show this with reference to FEMA policy in the following several pages., revealing the connections mentioned here while also addressing some of their subtler (and not so subtle) implications. What Joseph is able to so ably demonstrate here is the radical interaction in the neoliberal model of resilience between adaptivity, responsibility and a fairly radical – if not antiquated, or counter to modern liberal ideas of the social contract for security – idea about the individual's role in securing her own survival. And Joseph is able to link these relationships directly to prominent modes of political economy that are reshaping not only lives, but the nature of vulnerability as well. Danny MacKinnon and Kate Driscoll Derickson demonstrate this empirically in the context of global capital and climate change, a promissory harbinger of only increasing turbulence: "[the] discourse of resilience is that it places the onus squarely on local actors and communities to further adapt to the logics and implications of global capitalism and

climate change."[76] The sense of vulnerability, the need for adaptivity, fall onto smaller units (the individual, the family, the community); and the correspondence of these smaller units to enormous political and economic structures therefore require even more attention paid by the subjects of neoliberal resilience.

This is borne out, when considering documents like FEMA's *Are you Ready? An In-Depth Guide to Citizen Preparedness*.[77] While of course FEMA makes no mention of the neoliberal revolution in its own self-imagination of effectiveness, the document is extraordinarily revealing in terms of its goals and aspirations. And it reminds the reader time and again of the necessity for individual resilience, family and community teamwork, and the importance of self-administered aid. It, after all, is a pedagogical resource that not only lists calamities, but also directs citizens what to keep in their homes to increase their preparedness; gives advice on emotional and psychological well-being and trauma; and even how to carry out cursory inspections of structures to determine safe habitability.

The guide was prepared by FEMA in order to educate citizens on how to be more prepared for a wide array of surprise events including technological accidents (hazardous materials incidents, household chemical issues, nuclear meltdowns),[78] "natural" disasters (ranging from tornadoes, earthquakes, hurricanes, volcanoes and nine more),[79] and five scenarios of terrorist attack (these range from discrete and likely small scale actions to the

[76] MacKinnon and Driscoll Derickson 2013, 266.
[77] FEMA 2004
[78] ibid, 129-44.
[79] ibid, 47-126

disastrous event of a nuclear attack).[80] That it was issued as a part of a program to disseminate citizen engagement training through a new program called Citizen Corps, only renders more explicit the kinds of critiques that I was quoting above. It includes checklists, general knowledge tips, and concludes each section with quizzes – recall Jonathan Joseph, above, observing the concomitant neoliberal and resilience "concern(s) with…our adaptability, our reflexive understanding, our own risk assessments, our *knowledge acquisition* and, above all else, our responsible decision making."[81]

Perhaps even more tellingly, in the chapter addressing "Recovering from Disaster," FEMA introduces the subject matter frankly:

> Recovering from a disaster is usually a gradual process. Safety is a primary issue, as are mental and physical well-being. If assistance is available, knowing how to access it makes the process faster and less stressful. This section offers some general advice on steps to take after disaster strikes in order to begin getting your home, your community, and your life back to normal. *Your first concern after a disaster is your family's health and safety. You need to consider possible safety issues and monitor family health and well-being.*[82]

The agent here, importantly, is *you*. "…Getting *your* home, *your* community, and *your* life back to normal. *Your first concern… you…*" And, as will become more important momentarily, FEMA never mentions itself, nor the Department of Homeland Security, nor the fire department, EMS, or police, neither National Guard nor military. To see the activity of the agent, consider the verbal tenses: Issues of condition and aid "recovering," "safety," and "assistance" all appear in the present tense; as are all characterizations of *your* responsibility. "You" need to know what to do *in the moment of disaster*.

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[80] ibid, 145-78.
[81] Joseph 2013, 40. My emphasis.
[82] Ibid, 180. My emphasis.

In turn, the guide then lists who or which agencies might be appealed to in the event of one of the seventeen families of disaster, each with multiple possibilities and iterations under its family name. It is worth showing in full:

> **Direct Assistance:**
> Direct assistance to individuals and families may come from any number of organizations, including:
> - American Red Cross.
> - Salvation Army.
> - Other volunteer organization.
>
> These organizations provide food, shelter, supplies and assist in clean-up [sic.] efforts.
>
> **The Federal Role:**
> In the most severe disasters, the federal government is also called in to help individuals and families with temporary housing, counseling (for post-disaster trauma), low-interest loans and grants, and other assistance. The federal government also has programs that help small businesses and farmers. Most federal assistance becomes available when the President of the United States declares a "Major Disaster" for the affected area at the request of a state governor. FEMA will provide information through the media and community outreach about federal assistance and how to apply.[83]

After the fact, after the event, FEMA makes no offer of itself in direct terms. Directly, one may seek aid with humanitarian organizations, which make use of their own programs of resilience activity and education, it should be noted.[84] And, then, there remains another step of authorization, of recognition, before first responders at the federal level might take action. In their absence, there is *you*.

In a move that is enormously helpful in making sense of this departure from the role of the U.S. government – even to *claim* its primary role – in security, Olaf Corry argues that resilience has somewhat altogether supplanted "defense" in the conventional

[83] Ibid, 184.
[84] See Duffield 2012.

sense when it comes to human security.[85] A provocative claim to be sure, but Corry is convincing on the level that conventional threats – defined by Ole Waever and others as the existence of "an existential threat to a valued object, legitimizing exceptional means"[86] – no longer solely occupy the foreground of the security imagination.

> It makes little sense to "defend" against catastrophic climate change, pandemics, economic meltdowns, or even certain kinds of terrorism, insofar as security concerns such as these are based primarily on uncertainty, are located in the future, and often lack clear adversaries. Security thus has to take on *modus operandi* other than defense.[87]

Corry's central argument operates through the logic that if the range of threats is so broad, it makes little sense to overly invest scholarly attention to the relatively narrow conception of defense in the conventional sense of foreign enemies who pose threats to nation-states. More importantly for my own argument, Corry also provides a useful path from the dominance of neoliberal critiques of resilience; but not because they are inaccurate – far from it, and I agree – but because "critics of resilience, by interpreting it as *inherently* tied to a metanarrative of neoliberalism, tend to overlook its critical potential and functions within other logics of governing."[88] Forgoing the absolutism of neoliberal criticism means that a scholar can incorporate the neoliberal machinations at the same time as sharing concerns for human security outside of the neoliberal logic. It allows research to take stock of the effects of neoliberal order on subjectivities, on responsibility, and on the role of the state and capital in each of these. But it also allows us to think beyond these phenomena and focus on considerations that more directly

[85] Corry 2014, 256.
[86] Ibid. See also: Waever 1995; Buzan, Waever and de Wilde 1998.
[87] Ibid. See also Corry 2012.
[88] Corry 2014, 257.

impact the practical logic and rationalities of human survival, and how it interacts directly with power and discourse, possibly, as a complementary mechanism to neoliberal order.

At very least, taking this position allows the question to emerge of what might offer as a contrapositive: That within the very argumentative logic of critiques of resilience as practical neoliberalism, a focus on the non-priority of state action, the emphasis placed on communities actually presents a counter-narrative to neoliberal individualism within its very imposition upon sociopolitical life.[89] MacKinnon and Driscoll Derickson see a similar potential in such a reality, preferring the word "resourcefulness" to resilience for its progressive potentiality.[90] Nevertheless, the point ought be made that another social form of politics is also produced that is rarely accounted for in laissez-faire portrayals of neoliberal resilience that may serve as an important place from which to critique the critique, as it were, of the all-encompassing narrative of neoliberal subsumption. The point is, though resilience seems to vacate the political, MacKinnon and Driscoll Derickson are correct to argue that the political exists at many registers, and can be produced and reproduced through a multitude of interactions and forms of political community.

MacKinnon and Driscoll Derickson's point is to criticize the fundamental conservatism of resilient politics. But in their suggestion that resourcefulness succeeds as a useful alternative because it seizes on actually-existing community politics as a form of politics, they fall short of elaborating convincingly what the stakes are for the contemporary liberal state and its organization of political life. Resourcefulness may

[89] Ibid, 270.
[90] MacKinnon and Driscoll Derickson 2013, 263-6.

indeed involve an even more neoliberal train of thought. To the extent that modern liberal governments still offer what Claudia Aradau, carefully framing Arendt's critique of the Nietzschean individualist promise, calls "the promise of security," it is not clear that the promise would be fulfilled by agents of the federal government from the case of FEMA's *Guide* for the Citizen Corps that I discussed several pages earlier.[91] For Aradau, the promise of security in liberal governance corresponds to the assumption made by citizens in plural that effectively creates a political relationship. The promise of security at all levels reinforces a liberal social contract that undergirds the political in times defined most clearly by radical contingency and indeterminacy: "…promises presuppose a degree of control over the future, through the diminution of ignorance and the role of knowledge. To promise means to create continuity from present to future."[92]

It should be added that, as a consequence, promises are formative of a kind of political community. Aradau sees in Arendt an important position beyond the sometimes facile way that she is deployed by international theorists, simply as a marking figure etching out distinctions between the social and the political as she elaborates in *The Human Condition* and elsewhere.[93] The promise extends itself temporally, as an active moment of speech that defies the nature of contingency that the future might hold. The promise reconditions the figures bound by it against the uncertain future: "The promise enacts a limit to contingency and unpredictability, as promises are a necessary political

[91] Aradau 2014. There is a relatively deep literature in IR and security studies on this concept. See for example, Stern 2006; Burke 2007; Buzan, Waever, de Wilde 1998; Campbell 1992; Huysmans 2006, all of whom, as is Young 2003, are discussed by Aradau.
[92] Aradau 2014, 84.
[93] Arendt 1998, PT II, esp.

supplement to the unpredictability of action."[94] As Aradau continues this interpretation, security becomes once again central to her concern:

> The promise of enlightened knowledge, which is the promise of the security speech act, is effectively the voice of authority and certainty. A world that is completely certain, foreseeable and predictable is a world devoid of politics. That would mean that the politics of promising disappears as it becomes a "calculated, programmed datum that can be anticipated in advance."[95]

It is the absence of certainty, the strange relationship attempting to gain certitude in the promise that creates the political exchange of the promise, and the potential for a politics of the promise itself.[96] A sort of body politic emerges out of indetermination and the uncertainty it begs. A kind of exchange in which promises multiply the range of actors by fiat of necessarily being non-individualistic and, as such, create a plurality of givers and accepters that only really emerge in the ontological condition of indeterminacy (which Aradau refers to simply as contingency).

What is at stake in Aradau's formulation is profound. If promises are a social technique of assuring others against contingent futures, and those promises come to formulate political community, then the temporal relationship meets the political relationship anew in creating the promise of security where otherwise there could not be one. This of course does not imply that promises of security are always kept, or are somehow impervious to contingency – quite the contrary. It means that the promise of security forms a different feature of political community.

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[94] Aradau 2014, 84-5.
[95] Aradau 2014, 85. At the end of the quotation, Aradau is citing Lawrence Burns, "Derrida and the Promise of Community" (2001).
[96] Ibid, 85-6.

In a formulation of security not dependent upon security at all, but adaptability, flexibility, or resourcefulness – as is the case with resilience – then "the much vaunted resilience of communities when confronted with surprising events forsakes the unexpectedness of political action for the anticipation of resilient behavior."[97] In other words, in the full embrace of contingent futures, or at least the expectant knowledge that contingency exceeds knowledge, resilience does not simply forsake preventative and protective modes of security, as Corry insists, but it also forsakes a founding promise of the body politic itself. Far from the more hopeful desire to project a radical resourcefulness that is found in MacKinnon and Driscoll Derickson's criticism of resilience, Aradau sees only how the evacuation of the promise of security "does not aim to constitute the conditions of collective political action, but reverts back upon forms of individual or pre-given group action."[98] And yet other forms of political society exist besides the familiar state-based society that Aradau seems to long for as she laments the ubiquitous and pervasive logic of resilience. But her point is not lost: resilience represents an abandonment of certain forms of national security, a fuller acceptance of danger for individuals and communities, and replaces the hope for safety with the hope for survival.

Brad Evans and Julian Reid have written the most compelling text on this issue, a recent book *Resilient Life*, which undertakes to write a new political philosophy of "living dangerously" as it is rendered specific under the phenomenon of (neo)liberal resilience governance.[99] At root their book attempts to give contemporary human life the

[97] Aradau 2014, 86.
[98] Ibid, 87.
[99] Evans and Reid 2015. This book follows the publication of an essay exploring similar themes in 2013.

character of extreme vulnerability as it occupies a turbulent political world, which simultaneously teeters on the threshold of environmental disaster. They share many critiques and sympathies with the other thinkers that I have already discussed, but what makes their work stand out to me is the way that they further the questions left open by the critics who view resilience as a clear expression of neoliberalism, as well as those that lament somewhat the abandonment of security (the term as I use it is Evans and Reid's in the first place).[100] In confronting both the desire for resilience and at the same time its pervasive emergence, they argue that human life in these undetermined times is insecure by design:

> …liberalism is aimed today not at solving or preventing the manifestation of dangers and threats to security, but at making us forego the very idea and possibility of security, through the embrace of *the necessity of our exposure to dangers of all kinds as a means by which to live well*.[101]

Because in a world of catastrophic surprise, vulnerability becomes the very definition of human existence, and so to embrace vulnerability is to redefine life as one's own, as one's to modify, to adapt to the brink of one's capabilities.[102] The logic of adaptability comes to animate every aspect of navigating such a world to the extent that a "game of survival has to be played by learning how to expose oneself to danger rather than believing in the possibility of ever achieving freedom from danger as such."[103] To become resilient, they claim, one must fundamentally accept one's complete and utter

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[100] Evans and Reid 2013, 87.
[101] Evans and Reid 2015, 2.
[102] To the extent that they argue that this feature, while a lamentable advancement, illustrates a transformative advancement, it is critiqued by Schott (2013) who advocates for the perspective of natality rather than fatality.
[103] Evans and Reid 2013, 83.

vulnerability.[104] In accepting vulnerability to danger they don't mean living hazardously, but instead recognizing the necessity to become nimble in the face of a range of dangers; to be resilient is to master dangerous elements of life that threaten persistence, and to learn to adapt for fear of injury or death. It would be illogical to embrace a vision of security that would curtail the possibility to withstand disastrous events on one's own. If the demise of the promise of security for Aradau meant simultaneously a full embrace of resilience and at the same time a removal of the founding possibilities of the political, for Evans and Reid the politics of living in dangerous times revolves around a certain kind of abandonment as empowerment – in the most perverse way. Here, in a somewhat nihilistic passage, is how they organize the notion of exposure around the concept of imagined constant vulnerability to the seeming onslaught of disastrous events:[105]

> Deprived, then, of the potential to 'at last stand' upon a terrain whose forms of endangerment were known in advance, we continue to walk through a veritable minefield of potential disasters of a multi-dimensional nature, not knowing when the explosion will happen, with little comfort provided by the intellectual comforts of the past, and with no fence on the horizon beyond which relative security may be achieved and freedom from endangerment realized. The only solution, we are told, remains to expose oneself to all its disastrous permutations so that we may be better prepared against those already charged and yet to detonate along with those yet to even be inserted into this catastrophic topography.[106]

Resilience commands that its exposed subjects adapt and embrace, at least somewhat, their inherent vulnerability. The idea is not liberal in the sense that political society exists to grant freedom despite the potential for the individual to become dangerous; but, instead, "how the subject might practice freedom so that it achieves exposure to danger

[104] Smit and Wandel 2006, 289.
[105] They readily admit to a certain kind of nihilism in their book's mission, see Evans and Reid 2015, 116-19.
[106] Evans and Reid 2015, 115.

on behalf of itself and that population to which it contributes. Endangerment, it is now said, is productive of life, individually and collectively."[107]

That the book (and companion essay) were written by white men in the global north may seem unsurprising. Their mobilization of French theory (especially) and will to universalize their claims to global proportions, as if "resilient life" has colonized every corner of human existence, could seem to flatten the inherent hierarchies of the very sort of vulnerability they bring to the fore. After all, as many have written already, the violence of non-state warfare, the political unrest of fallen states, the starvation and droughts threatening agriculture, the worst contagious outbreaks, and the deepest and most severe poverty are not felt equally the world around – but most relentlessly in the global south.[108]

How could vulnerability possibly be so uniformly applied and rendered as to be a *human* condition? Ranabir Samaddar, the postcolonial theorist, recognizes in this very language something often remote from northern theory, and is well worth quoting at length:

> Evans and Reid of course do not use the term post-colonial life. But the life they speak of and discuss is the life that millions in the South live and the life that the global managers of capitalist governance want to incorporate in the discourse of global governance…clearly whoever reads this book will know this is a critique of post-colonial life. After all neoliberalism is nothing if not an ideology and a range of policies to make capitalism capable of dealing with a permanent post-colonial existence, which would mean a long duration of crisis, the domination of finance and other forms of virtual capital, dispossession of peasantry, return of the primitive mode of accumulation, continuous wars of subjugation, loot and plunder, and the securitization of life in its entirety. Neoliberalism, in short, is a strategy to overcome the division in the global capitalist order between the

[107] Evans and Reid 2015, 64.
[108] See Ahuja 2009; Chakrabarty 2009 and 2012; Luciano 2015; Parenti 2011; Povenelli 2015; Povenelli, Coleman and Yusoff 2014.

> developed world and the post-colonial world, if necessary by making life in the bourgeois world post-colonial… *Resilient Life* is a testimony, even though a bit oblique, to the fact that the post-colonial predicament is global.[109]

Here Samaddar registers the important point that, rather than read Evans and Reid as universalizing the seeming plight of those whose relatively stable notion of security in the global north had been abandoned, he encourages the reader to see a different generalization at work. The pleas for resilience in the vulnerable is a spreading of the hostile conditions experienced by those who have historically *already lived* this conditions for quite some time. For it is a condition of exposure to be rendered only an extractable resource for the profit motive, deterritorialized to become the colonized.[110] To be forced into such conditions is not anti-liberal, it is the history of liberal capitalism in its colonial form, spread further.

Jean and John Comaroff's *Theory of the South* puts this differently, but situates the sentiment in such a way that reorients Samaddar's extension of the resilient subject of the north as an extension of the experience of those, historically, in the south in another way worth quoting, also, at length:

> …we seek to stress something else: that, while Euro-America and the south are currently caught up in the *same* all-embracing world-historical processes, it is in the latter that the effects of those processes tend most graphically to manifest themselves. Old margins are becoming new frontiers, places where mobile, globally competitive capital – much of it, these days, southern and eastern – finds

[109] Samaddar 2015, 141-2.

[110] Kevin Grove makes a similar argument in the context of Jamaica's Office of Disaster Preparedness and Emergency Management (ODPEM): "Apparatuses of neoliberal disaster resilience possess no adaptive capacity of their own; they are parasitically reliant on the population's constitutive power. However, this power always expresses itself through contextually specific force relations that may or may not complicate this appropriation… ODPEM could not fulfill its goal to protect life itself – the life of all Jamaicans – because the lives of certain Jamaicans—those living in the garrison's unfolding disaster—exceed the appropriative techniques of community-based resilience" (Grove 2014b, 624).

> minimally regulated zones in which to vest its operations; where industrial manufacture opens up ever more cost-efficient sites for itself; where highly flexible, informal economies have long thrived; where those performing outsourced services have gone on to develop cutting-edge info-tech empires of their own, both legitimate and illicit; where new, late-modern idioms of work, time, and value, take root, thus to alter planetary practices. Which is why, in the dialectics of contemporary world history, *the north appears to be "evolving" southward*.[111]

Reading Comaroff and Comaroff in the context of Evans and Reid cannot but highlight the clever reversal that Comaroff and Comaroff illustrate in this passage. Their point, within the context of critiquing the self-appointed nature of European mastery via Enlightenment, acknowledges that in point of fact the global south has evolved all along. The south had its own particular desires for freedom and other elements firmly found at the center of narratives of European Enlightenment – and often posed as a desire for freedom from, quite literally, Euro-American masters, colonizers, and slave owners.[112] Further, the south is responsible for a great deal of "progress" in the sense of value that capitalist modernity emplaces upon that loaded word.

To universalize European accomplishment, and do so in a way that merely "marginalizes," the not-yet developed, is not merely Eurocentric, but an empirically erroneous act of historicism.[113] Comaroff and Comaroff, in a riveting flourish, place the word evolving in inverted commas, exposing the ways that the north is only catching up to the south in terms of imisseration at the hands of global capitalist transformation as

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[111] Comaroff and Comaroff 2012a, 13; the final emphasis is my own. For critical reflections, see Aravamudan 2012; Ferguson 2012; Obarrio 2012; Mbembe 2012; Quayson 2012. Comaroff and Comaroff reply in 2012b.
[112] See Dussel 1993; Sylvia Wynter 2002 and 2003 works along similar critical lines.
[113] Chakrabarty centralizes this point about the "not-yet" in the context of the historicism of Enlightened modernity convincingly in Chakrabarty 2007, 8 & 250, esp.

perhaps its greatest triumph.[114] Reading Evans and Reid in light of Comaroff and Comaroff, then, illustrates how their thesis of resilient life – and how I have read it along with Samaddar occasionally against the grain – ably shows how the resilient logic of exposure, and its spread to the "civilized" north, should be read in terms of the north "evolving" to greater degrees of vulnerability within the very same logic pronounced by the progress of modern-capitalist-enlightenment-progress.

This means, as Evans and Reid are clear to establish in their own terms, that to become resilient is not to call forth some mysterious universally human will to persist.[115] Resilience, instead, registers its need within political communities – especially – who were *already* vulnerable, or at very least *produced to be* vulnerable: "Little wonder that resilience is most concerned with those deemed most vulnerable. For it is precisely the insecuritization of the most at-risk which politically threatens the security and comforts of those who are sufficiently protected from the all-too-real effects of risk based societies."[116]

At best, resilience operates differently for different people with different means. At worst, it regulates, threatens and exposes those who were vulnerable already because their segments of whatever population to which they are seen to belong live less secure lives as it is. They make special note of this with regard to the 2012 hurricane, Sandy, which ravaged much of the East Coast of the United States. Though the storm actually

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[114] There are grand parallels to be drawn here with Marx's understanding of fluctuations in quality of life in the Industrial Reserve Army according to the General Law of Capitalist Accumulation. See Marx 1996, 623-34. For an excellent rendering of these passages in Marx with reference to the concepts of relative and absolute immiseration, see Evans 2004, 101 & 128.
[115] Evans and Reid 2013, 92.
[116] Ibid.

could have been much worse, many – especially the poor, black and brown, elderly, and disabled – were particularly affected. It was in some ways worse than Hurricane Katrina, which ravaged New Orleans in 2005 with a spectacular aftermath of death and suffering.[117] Yet Evans and Reid, in the similarity between the two storms see the apotheosis of the human costs of resilient inequality expressed in such moments:

> Like Katrina before it, those already insured with the financial means and capabilities to "escape" impending change in climactic conditions experienced the event as a mere inconvenience in the ongoing accommodation to rapid environmental change. For those, however, on the margins of existence, those populations violently contained within deeply segregated ghettos which offer no credible means for escape, the raw reality of the devastation was all too apparent. In the absence of social protections, such populations were precisely the ones asked to evidence their resilience capacities. There is no resilience asked of those who can afford to take flight.[118]

How haunting that they opt for an ecological disaster to illustrate the redoubled burden carried by the poor and marginalized in moments following hurricanes. How stunning a way to express the politics of what are often called "natural" disasters. To recall a much earlier discussion in this chapter, the philosophical force of C.S. Holling's critique of conventional ecology, the events here are precisely "mulitstable" in the sense that seemingly separate systems – ecological turbulence, economic and racial inequality – conjoin to render a population even more marginal, even more endangered, even more exposed – one may call it "more resilient" if one must.

In a strange turn of fate – one that Holling's motivations would hopefully not have foreseen, though it is inexcusable that political advocates of his work do not – it is precisely the imposition to become resilient that threatened the already vulnerable all the

[117] At very least, Sandy's wind speeds were higher. But there is little use beyond being obtusely pedantic in actually comparing such things.
[118] Evans and Reid 2015, 88.

more. For those already less vulnerable, such approaching disasters were not only avoidable, they were altogether foreseeable to the extent that their eventfulness were at best a minor inconvenience – or as they sometimes call it in the Gulf area, including New Orleans, a "hurrication" – while the descriptions of the catastrophe that looms without warning becomes all the more salient for those trapped in attics after Katrina for days, sometimes with the corpses of their families, in breathless humidity, waiting to die. The same goes for those living without electricity or water in high rises-turned-walkups in the boroughs outside Manhattan, exposed, as it were, in full reality to their abandoned security. Or, if you like better, their resilience in full, empowered, force.

V. Conclusion

The dominant view that I have mapped throughout this chapter of resilience marks an acceptance of ontological indetermination. And from that acceptance in some ways, resilience reacts to the idea of ever-present danger with increasingly pervasive logics of resilience. It should stand to reason, then, that it does so in a profoundly unequal way. Resilience asks the weight of that inevitable catastrophe to be borne by those who have no other choice than to be resilient, which is to say they would have to be resilient anyway.

Walker and Cooper in their now seminal essay argue that the outcome of neoliberal resilience is that in its totalizing nature, that it internally limits the capacity for critique. In a world portrayed as already vulnerable to the extent that protection is less useful than resilience, they argue that to critique resilience is to reinforce it.[119] But they

[119] Walker and Cooper 2011, 157. "In its tendency to metabolize all countervailing forces and inoculate itself against critique, 'resilience thinking' cannot be challenged from within the

hedge very closely to the first two substantive sections above, which trace the ecological and economic prehistories of today's pervasive logic of resilience. In the previous section, I tried to show several ways that resilience can be critiqued, and most importantly can be critiqued from the perspective that resilience inherently perpetuates deep inequalities.

If Corry is correct that security has migrated from "defense" to "resilience;" and Aradau is correct that the most critical effects of pervasive logics of resilience is that they disrupt the founding principles of civil society (at least in terms of the role played by the liberal state); then it stands to reason that the effects of this double-move I have undertaken is not to *create* inequalities, but to *exacerbate* them. Resilience theory may very well carry forth the missions of both Holling's qualitative eco-resilience and Hayek's philosophical economism at the same time. Yet neither, it should seem clear at this point, *relieves* vulnerability, but redoubles it for those that were already left behind. This is what it means to evoke the abandonment of security under neoliberal regimes of resilience. This is what it means to accept the inevitability of indeterminate futures – to react to the certainty that the uncertain is bound, eventually, to occur.

We can see clearly that resilience encourages the already vulnerable to be more adaptive. But this stems not from an epistemology of uncertainty, but in a deep ontological commitment to indetermination: that the future will occur as it will. And to move within the parameters of resilience is not to reinforce authoritarian over-securitization of everyday life, but to accept exposure to danger as fundamental to one's

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terms of complex systems theory but must be contested, if at all, on completely different terms, by a movement of thought that is truly counter-systemic."

position in everyday life in a political society. And to the extent that, in the world of security (whether resilient in form or not), what one survives – or at very least is exposed to – is an expansive list of as many specific, if improbable, catastrophes; then it stands to reason that the animating force of such a move to resilience is an idea about catastrophe that has become altogether normalized, if not abstractly powerful. In the next chapter, as a result, I bring the first two chapters together in order to rebuild "the coming catastrophe" as one that is altogether, today, extraordinarily normal.

3

Normal Catastrophes: Security Against All Hazards

I. Introduction

In the first chapter, I tried to give new life to the abstract, however frequently evoked, idea of "the coming catastrophe." Beyond an effort to show transformations in that concept over time – importantly, from the specific to a more general understanding of what may come (which is also a central, though more implicit, element of the current chapter) – I showed how frequently the coming catastrophe is considered in mainly epistemological terms, preoccupied as it is by the influential discourse surrounding uncertainty. Partly because many contemporary scholars are beholden to the influence of a particular reading of Foucault, or else to the influence of the Copenhagen School of security studies who privilege "speech acts" as formative of securitization, so much of the analysis given to preparatory security leans unnecessarily toward the work and reasoning of security professionals.[1] As an effect, much of the scholarship committed to

[1] On speech acts in the Copenhagen School and some critiques see for example: Bain 2006; Buzan 1983 and 1991; Hansen 2000; Hough 2004; Huysmans 1998a and 1998b.

understanding security against future catastrophes focuses on security officials and political elites.

But as I also showed, the centrality of uncertainty to security thinking corresponds importantly to ontological indetermination. When left aside, the abstention of ontological reflection articulates a profound wedge in the contemporary scene surrounding catastrophe and the prospect of human survival. Failures to know correspond to ontological indeterminacy as a central theme of human security itself. Hence the obsessive preoccupation with uncertainty. Uncertainty obscures the question of impossible knowledges produced from the cleavages of ontological indetermination, and perpetuates the machinery of preventative, anticipatory modes of security in a nearly endless cycle of responding, not to uncertainty, but the struggle to know what cannot be known.

In the second chapter I focused on a different approach, one that resigns itself to the ontological impossibility to hold adequate knowledge about the future. As an effect, the ideas animating resilience theory represent a fundamental acceptance of radical uncertainty, and carry their own perilous effects.[2] In a way the first chapter revolves around theories and practices attempting to master what cannot be mastered ontologically. As such that chapter re-injects the question of the ontological back into the dialogue about future-oriented security practices in order to show the richness of the idea of the coming catastrophe and how it emerges from a strict tension between what can and cannot be thought and what is yet to be determined. Chapter two, it follows then, is about the dismal effects of giving up on that pursuit and aiming toward surviving what is taken

[2] On "radical uncertainty," see Dillon 2007.

to be inevitable in an embrace of the very same tension that future-oriented security attempts to resist.

In this present chapter the two ideas converge. Again, this chapter moves from the particular to the general; from the singular to the plural; and, likewise, from the concrete and discernable to an abstraction.[3] The weight of this abstraction, I argue, is pregnant with political force. I try to show how "normal catastrophes" present the problem of survival to which human security corresponds with a catchall category that feeds back upon efforts to cope with both uncertainty and indetermination. But, importantly, this abstraction is conceptual to the extent that it strives to encompass ideas of all that might come. And it is a concept bearing enormous political force.

The idea of normal catastrophes, as it were, recombines unlike phenomena and fills them with meaning as one – as the coming catastrophe – in a sense that it renders their particularities vast enough that a general paradigm of response is required, however shaky; or, as Collier and Lakoff contend, however fraught with internal tensions.[4] It is intrinsic to my thinking about catastrophe that its meaning functions this way in everyday language. An attentive reader will notice this frequently when catastrophe stands in for the particularity of a distinct event – notice the way that it functions as a categorical unifier for unlike events, past, present or future. The word catastrophe becomes conceptual through its abstraction, where it renders unlike events (a hurricane, a terrorist

[3] In using the word "abstraction," I do not mean to link its meaning to the unreal or immaterial. Instead I mean to insist that the notion of probable catastrophe considers disasters all and sundry in a means that renders their specificity less important than their probability. In this sense I mean to evoke the abstract notion of catastrophe in powerfully discursive ways with material effects that I narrate over the course of the chapter. On "real abstractions," see Toscano 2008; and discussions of Toscano's ideas in Moore 2017, pp. 595 and 598.
[4] Collier and Lakoff 2008, 8.

attack, for example) as roughly equivalent in their magnitude. As a result, "catastrophe" is a *functional* abstraction – it functions to unite and render similar a range of events that are otherwise unlike. Jean-Pierre Dupuy makes this connection clearly:

> I speak of catastrophe in the singular, not to designate a singular event, but a whole system of disruptions, discontinuities, and basic structural changes that are the consequences of exceeding critical thresholds. Feeding on one another and growing in strength, the calamities we are witnessing today herald an age of unprecedented violence.[5]

For Dupuy, catastrophes (plural) are unified under the singular moniker, the *sema* of catastrophe, because his political rhetoric articulates a belief that human beings are on a crash course to their own extinction.[6] For Dupuy, catastrophes link together as catastrophe-singular because they all lead to an eschatological end.[7] For me, the link between the plural and the singular relate similarly, but not because of a *telos*, instead because their differences become semblances under the conceptual work that the real abstraction performs.

The effects of combining threats under the banner of catastrophe are multiple. In bringing together the arguments of the first two chapters to bear on the concept of catastrophe in general, what I illustrate below is the unique way that the very concept of catastrophe serves to create its own autocatalytic loop in which "catastrophe" stands in for "particular catastrophes" in ways that offer a new problem for thinking about security;

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[5] Dupuy 2013, 21

[6] ibid. See also the opening pages of Dupuy 2005.

[7] "It is my profound belief that humanity is on a suicidal course, headed straight for catastrophe" (Dupuy 2013, 21). For Dupuy, this suicidal course is fixed in the paired belief in scientific innovation and progress, because it creates a paradox of a certain kind of humanism in which scientific progress has led to the environmental and warring crises that define our common present, and portend the contours of our likely catastrophic future. But it is also the case that humanity is so wedded to scientism that scientific innovation offers the only reasonable solution at one and the same time. See Dupuy 2005, 9.

but more importantly, perhaps, offer new urgency within its very conceptualization. Many, especially when writing from within the critique of resilience argue, as does Olaf Corry (citing O'Malley), that "resilience 'does not imagine specific scenarios against which defenses (or preemptive strikes) must be prepared' but keeps them open instead."[8] This point is well taken. But the same can be said of conventional security measures that seek, not simply to withstand, but to prevent unknown future destruction and casualties. The non-specificity of the coming catastrophe – as it gains force when it is abstracted both by advocates of resilience, prevention, and preparedness – is not because of resilience but because of the indetermination of the future itself coming to bear on emergency management and security institutions.

In other words, catastrophes are not normal because they are banal. They are normal because their particularities – in the future tense – have been homogenized.

The recent concern on the subject in the discipline of political theory has been on the effects of catastrophe on governance – its discourses, rhetorics, and knowledges – upon the welfare of its citizens and the ways that such *catastrophizations* affect the possibilities and limits of democratic (or even merely tolerable) contemporary life.[9] In critical security studies, which can often offer a political theory of its own, the concern has focused more upon problems facing experts that result from their own uncertainty, leading to transformations in cultures and practices of security provision and its broader

[8] Corry 2014, 256; the O'Malley passage that he is citing is from O'Malley 2011, 55.
[9] See for example, Vázquez-Arroyo 2012 and 2013; Ophir 2010

effects.[10] This chapter bridges the first two chapters that focus on the critical security literature with the next few that deal with the pervasive conceptual presence of catastrophe in contemporary political life and culture; and hence this chapter seeks to begin linking what are rarely understood to be points of mutual concern between security studies and political theory as understood by the recurrent evocation of future catastrophes.

In this chapter I argue that despite their differences, preparative and preventative modes of security operate against a similar phenomenon. Where earlier I focused on the future orientation of catastrophe, here I will insist that catastrophe in itself is a fabrication, an abstraction that includes a significant list of distinct kinds of events beneath its umbrella. As a consequence, the concept of catastrophe emerged from shifts in practical security concerns, but its result was far from only practical.

To show this, I first trace some of the theoretical deployments of the concept of catastrophe. This conceptual elaboration shows the flexibility of the concept of catastrophe, especially temporally, to illustrate some complications that should be associated with thinking about catastrophe in the future tense, but also to separate my argument about catastrophe from others working on the concept. Moreover, a clarification is necessary because other conceptual accounts of catastrophe insist that there are components of catastrophe that inhabit everyday life and therefore might be seen as similarly "normal." I make efforts to show how these ideas differ from the concept of normal catastrophes, namely that they suggest different phenomena, as well as

[10] See for example, Anderson 2010a and 2010b; Aradau and Van Munster 2007, 2008, and 2011; Adey and Anderson 2012; Amoore and de Goede 2008; de Goede and Randalls 2009; Neocleus 2012.

introduce the unique temporal, i.e. future-oriented, notion of normal catastrophes. As a way to illustrate the origins of normal catastrophes, I turn to scholars who together constitute an established historical account of the ways the United States government might have practically contributed to the combination of distinct catastrophes into a normalize homogenization. Specifically I look at the emergence of practices of "civil defense" which, according to Peter Galison, Stephen Collier and Andrew Lakoff, led to transformations in the object of security moving from the singular threat of nuclear war to a longer list of threats in general. I then return to efforts to articulate a broader conception of catastrophe as a way to bridge the earlier segments of the dissertation with the latter. In doing so, I perform interpretations that show a stark distinction between the histories leading to the formation of FEMA that are tracked in the discussion of Galison, Collier and Lakoff's work that shows how, in the post-9/11 security environment, the category of normal catastrophes seems to swell larger and larger. The takeaway for the reader should be that the concept of catastrophe is an abstraction representing a range of deadly threats, and one that motivates concerns for human security; and, not least, that this real abstraction has a material history driving it to the present state of affairs.[11]

It will be useful to clarify that this chapter theorizes the emergence of a combinative discourse that admits features of both prevention and preparedness. Its principal effort is to theorize a harmonization of disparate modes of considering future catastrophes. For purposes of scope, the narrative of the chapter focuses on the context of the United States since the Cold War, but it is not a work of empirical history. Instead it in part engages with empirical studies in order to theorize the conceptual passage from

[11] Toscano 2008

"the coming catastrophe" to its normalization in discourses about security as a more general political logic. It presents a narrative drawn from historical sources to show the advent and transformation of an idea. It does so, by making reference of established historical writings before performing an interpretation of more recent documents in an effort to demonstrate the expansiveness of threats included in the category. Showing the way that normal catastrophes homogenize distinct kinds of events was important to the previous two chapters, and this chapter aims to synthesize the work done in those chapters through the concept. As such the present chapter operates as a conclusion to the previous two, by theorizing across what was held apart in their singular instances, and points toward the work of the following chapters which try to move beyond them to a broader assessment of their implications.

II. (Ab)Normal Catastrophes: Past, Present, Future

Catastrophes are by definition abnormal. They enact a breach in the normal state of affairs, leaving behind them not only wreckage but also transformations in all corridors of life that they touch. So it cannot seem but odd when I argue that catastrophes – in a very particular way – have become utterly normal.

Many thinkers of catastrophic events insist that from its etymological roots to its everyday use in language, catastrophe signifies a disruption – a moment when the normal state of affairs becomes punctuated.[12] A catastrophe, as Adi Ophir puts it, is "an event that transforms both time and space" into a zone of disaster, a new present of turbulence

[12] This is a common theme in the theoretic literature of disaster. See for example Ophir 2010, 61; Vázquez-Arroyo 2013, 741-43; Vázquez-Arroyo 2012, 212; Neyrat 2008, 35; Aradau and Van Munster 2011, 3, 10-11.

distinct from the presumably more tranquil pre-evental past.[13] Likewise, Frédéric Neyrat argues that catastrophes issue a "partial discontinuity and a relative continuity" in the occurrence of such massive events without "radically upsetting historical continuity," by which he means that these momentous events, while disastrous, still allow for the continuity of time.[14] Antonio Vázquez-Arroyo, borrowing from Ophir, and going further than Neyrat, insists that catastrophes have a transformative effect: "…the concept of 'catastrophe' suggests a radical break from 'what is,' a diremption in the perceived order of things that brings with it destruction and loss, an irreversible transformation of the present, a turning point, and a sense of irremediable defeat for those who are on the receiving end of it."[15] Or, as he puts it later in the same essay, "the shattering of an old order."[16]

Yet, more central to his point of view, Vázquez-Arroyo reminds us that catastrophes can also be dreary and sometimes seem like non-events, but nevertheless constitute a disruption to those that endure them as these less spectacular catastrophes transform landscapes and peoples, obscuring some suffering while attention shifts to more fearsome disruptions of everyday life elsewhere.[17] This conception, at least on the surface, might seem similar to a statement that catastrophes are normal. But Vázquez-Arroyo, recalling Žižek, has in mind the ways that such dreary catastrophes render ongoing pernicious states of affairs commonplace. Vázquez-Arroyo makes use of Žižek's distinction in *The Puppet and the Dwarf* (who himself is drawing on Terry Eagleton's modes

[13] Ophir 2008, 61.
[14] Neyrat 2008, 35.
[15] Vázquez-Arroyo 2012, 212.
[16] Ibid, 213.
[17] Vázquez-Arroyo 2012, 213; Vázquez-Arroyo 2013, 745-6.

of tragedy) while discussing 9/11 as transfixing spectacular event that overshadows ongoing calamities like the prolonged suffering of the Palestinians.[18] The distinction between big-C *C*atastrophes (spectacular events) and small-c *c*atastrophes (long term, malaise-ridden, structural events riddled by human suffering) reveals the critical difference between the two sorts of events as related states of affairs: "The first mode of tragedy, the figure against the 'normal' background, is characteristic of the First World; while in much of the Third World, catastrophe designates the ever-present background itself."[19]

Mostly, small-c *c*atastrophes – colonialism, capitalism, global warming are examples – unfold over the long term and seem less like events than injuriously dismal states of affairs. They can manifest as "tragedy conceived as an ongoing, dreary condition that is sometimes normalized, even explicitly authorized and overshadowed, under the auspices of the [spectacular] connotation."[20] That they are "normalized," for Vázquez-Arroyo, means that catastrophes can often be structural organizing principles that visit great harm on the affected, but perhaps because they embed themselves in the political organization of states of affairs, appearing non-catastrophic and simply sad, irremediable, unalterable.[21] In other words, for Vázquez-Aroyo, small-c catastrophes are normalized not because they are normal to those whose lives are disrupted by their states of affairs, but because they seem normal compared to the grandiose catastrophes that tend to obscure them and make them seem endurable. The distinction between big-C and small-c

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[18] Žižek 2003, 165.
[19] Vázquez-Arroyo 2012, 213; The discussion in Žižek follows a lengthy discussion of Dupuy, who I interpret extensively in chapter five. The discussion that Vázquez-Arroyo refers to in *The Puppet and the Dwarf* appears in Žižek 2003, 165; For the Eagleton that Žižek is drawing upon, see Eagleton 2003.
[20] Vázquez-Arroyo 2012, 213.
[21] Vázquez-Arroyo 2013, 746.

catastrophes can be made less cumbersome: big-C *C*atastrophes are large-scale events, with impactful effects; small-c *c*atastrophes designate ongoing insufferable conditions. The latter, to Vázquez-Arroyo, designates such dreary catastrophes that carry their own political force in normalizing states of affairs and hence illustrate the ways that intolerable forms of life are often obscured by catastrophic events, or how terrible circumstances are mitigated by the appearance of harm at another more spectacular scale.

But what about when they have not yet occurred? What can we say about catastrophes that remain matters of speculation, whether spectacular or obscure? Most thinkers theorize catastrophe as a historic or already-existing phenomenon.[22] There is however a broad literature in security studies concerned with anticipatory strategies and how they are concerned with catastrophe, as I have shown in previous chapters.[23] But this literature often obscures what the philosophic and political theoretic project has obsessed over. Because of the emphasis in security studies on matters of professional expertise, it rarely dwells on the phenomenon of catastrophe itself, nor the ways that catastrophe registers effects outside of the security establishment. How does the anticipated catastrophe carry political weight?[24] What is the catastrophe in question when it comes to disasters that have not yet occurred? In aiming to discuss what sorts of politics are made possible by anticipating future disasters, we should move beyond the tendencies of

[22] Walter 2008; Chakrabarty 2008 & 2012; Hugget 1998; Ager 1993

[23] See for example, Aradau and Van Munster 2007, 2008, 2011; and Anderson 2010a and 2010b.

[24] Vázquez-Arroyo discusses these questions as a matter of political rhetoric and narrative in Vázquez-Arroyo 2013. From his perspective, the rhetoric of catastrophe – his take on Ophir's discursive catastrophization – is a deployment by political agents that depoliticizes (745) and neutralizes (746) populations. I discuss some of these matters in the following chapter, as well as in Kindervater 2017, esp. pp. 100-104.

security professionals, beginning with what animates concern for the coming catastrophe.[25] If the coming catastrophe has a force capable of organizing political life, then it is necessary to identify what, in the beginning, is embodied when future catastrophes are invoked. In other words, *pace* Vázquez-Arroyo, I recognize the importance of how catastrophes render states of affairs normalized, but in a very different way.

I am interested less with the effects of catastrophes that have already occurred, for which we can register their effects, than with the force of catastrophes that have yet to occur. Vázquez-Arroyo and others are preoccupied with the ways that suffering develops historically to compose the present. I am interested in a separate yet related set of ideas: How is it that "catastrophe" stands in for a range of different events? Further, when taken from the standpoint of "the coming catastrophe," how is it that this concept comes to blend and abstract many different sorts of possible events into the idea of a future catastrophe itself? The notion that some catastrophe, as a conceptual category for a range of any number of disasters – the notion that such abstract catastrophe is nevertheless likely – means that catastrophes in general have become utterly normal. Put simply, how does the singular, highly improbable event of a catastrophe, when taken as all possible future possibilities – what is called in the next section "all-hazards" – become *altogether probable*. In the next section, I explore how this came to be.

[25] I link the concept of "normal catastrophes" that I develop in this chapter to a larger set of cultural effects in the following chapter.

III. Nuclear War, Civil Defense and the Generalization of Threat: All-Hazards Security

The historical emergence in the 21st century of normal catastrophes extends from a very particular catastrophic vision in the 20th. As I outlined in the first chapter, the notion of complete nuclear annihilation emerged as a conceptual foundation for future-oriented constructions of contemporary ideas about human security. The speculative prospect of nuclear war revised the basis of security thinking from territorial and national security to a broader question of existential persistence in a time of rapidly transforming technological capabilities.[26]

From the possibility of nuclear winter came the totalizing idea that catastrophe posed an existential threat that threaded together notions of national security, catastrophic possibility, and future orientations to threat of calamitous scales. Yet, now, the conceptual ties binding future catastrophe to the singular, the particular, notion of nuclear annihilation branch out and encompass such a wide view that it no longer makes sense to implicitly link "the coming catastrophe" only to nuclear war.[27] Nor would seem anything but limiting of the concept, for the concept itself extends far beyond nuclear threats to encompass such a wide range of possibilities that it only makes sense to consider them in their discursive construction as entirely probable, entirely normal.

In mapping the progression of "preparedness," Andrew Lakoff and Stephen Collier argue that domestic security in the United States transformed because of postwar

[26] Buzan 1997, 5.
[27] Perrow 1984, 256-7.

strategy of "civil defense."[28] Building on concerns from aerial bombing surveys, the US security establishment began to theorize domestic security in more dramatic terms, where massive casualties could be sustained in previously unthinkable ways. In this context, Peter Galison notes that as the United States began building its nuclear capabilities, it was already inspired by its singularity on the world stage. After all, the U.S. was the only nation state to have ever deployed a nuclear weapon upon an enemy.[29] As such the United States projected the threat that it itself imposed on the world, not only against foreign adversaries, but perhaps most importantly against itself.[30]

In the main, the United States security establishment began wondering what sorts of effects it might suffer if its adversaries reached the same capacities that it had. Undertaking significant empirical research, the United States developed strategic bombing surveys that produced new strategies for offensive war making. But the surveys also sparked new interest in domestic vulnerabilities should adversaries gain a parity with US aerial capabilities.[31] The result was a range of "distributed preparedness" techniques which "mapped national space as a field of vulnerabilities" which disaggregated the landscape from centralized cores of vulnerability to trying to redistribute infrastructure across space in order to limit vulnerability.[32] Germinating in the pre-nuclear age, the US undertook knowledge creating activities to strategize the impacts of aerial bombing

[28] Collier and Lakoff 2008, 11.
[29] Galison 2001, 29.
[30] ibid, 30.
[31] ibid
[32] Collier and Lakoff 2008, 8; Galison 2001 makes this feature of decentering the landscape the priority of his study.

tactics resulting in a more varied view of the focal point(s) of insecurity though from a singular threat of intercontinental nuclear attack.

Key to Collier and Lakoff's thesis of "distributed preparedness," which bears stark resemblance to Galison's thesis in his landmark critique of postmodernism from 2001, they argue that the mimetic influence of U.S. bombing capabilities had remarkable effects at home. In essence, because the U.S. was alone in its initial nuclear capabilities, it was able to reflect back upon its own territory the possibility that others might gain similar potential for attack. Resulting from this view, several results followed. A redistribution of resources from federal (centralized) command were reallocated to state, local, and private authorities.[33] In what they call "emergency federalism" Collier and Lakoff note that the 1951 Civil Defense Act repurposed defense from the national level to a distributed network of actors.[34] This redistribution was not merely a shift in authorities, but also from the main seats of political power, highly concentrated urban centers, to inspiring a network that disseminated possible effects from foreign attack.

Peter Galison recognized this a half decade earlier when writing on the same theme covering the same period. Emphasizing the fact that the knowledge production of the U.S. Strategic Bombing Surveys created meaning about the built landscape, Galison argued that, in essence, a new map of civil life was drawn precisely by the U.S.'s own self-reflecting ideas about vulnerability. New partnerships between federal government and private industry were created to respond to vulnerability maps. And new civil plans

[33] Collier and Lakoff 2008, 12-13.
[34] ibid.

were drawn where a less-centralized network of civil life rendered the U.S. and its economic infrastructure less vulnerable to singular attacks.[35]

As other states became nuclear powers this imagined future gained increasing pertinence. But it is important to remember that the threat of nuclear war remained an utterly speculative phenomenon; and one that was not only speculative but singular in both its presumed scale, as well as its status as apotheosis on the scale of imagined human generated catastrophe itself.[36] After all, only the United States had ever deployed a nuclear weapon on an enemy target.[37] And its adversary in Japan surrendered rather than retaliated. But as more states leveled the playing field of the nuclear age, the question of what nuclear war might look like replaced the merely paranoid stance of a state whose civil infrastructure was shifting because it imagined the possibility of other states being able to act as itself had already acted.[38] As the Cold War loomed, so did the nightmare of nuclear annihilation.

Nevertheless the era of nuclear bombs introduced to U.S. security discourse apocalyptic tones of tremendous dystopian color. In a sense, the security community reacted to this discourse as much as they did the presence of the capabilities of its adversaries.[39] But more than what Galison diagnoses as a kind of Lacanian mirroring amongst those contemplating life and death after the emergence of nuclear bombs, a practical shift emerged as well. In the early 1950s, the magnitude of potential losses from a nuclear encounter entered into the discussion of the scale of possible losses. Previous to

[35] Galison 2001, 13
[36] Dupuy 2004, 202-4.
[37] Dupuy 2005, 81-2
[38] Galison 2001, 29-30
[39] ibid, 27.

this moment, national security was the principal conception where the key features to be protected were the centers of power, actors occupying its key institutions. With such large numbers of casualties for the first time possible, and now in such a truncated moment of time, the idea of war was conceived less as a drawn out engagement, as much as a tipping point. In a way, the magnitude of potential nuclear war affected conceptions of time and speed as much as it did the space in targeting.

"[A] sudden and devastating attack" married urgency to magnitude.[40] In the eyes of the U.S. National Security Resources Board, national priorities needed to recognize the effect that such attacks would have on "America's productive power."[41] The economic interests of the United States gained prominence in the priorities of thinking about national security, but so did the safety and infrastructure surrounding those who create such value. To think national security in the air-nuclear age meant to consider the biopolitical implications of mass casualties as well as the endurance of critical infrastructure as the focus of the productive capacity of a nation state. As such, "national security" integrated a more abstruse set of ideals under the aegis of "civil defense." And rather than merely considering the stakes of nuclear war as a matter of "defense" against foreign threats, it became clear that new tactics were required that might *prepare* for events so magnificent that to have been unprepared would be to have missed the potential of nuclear annihilation in all of its alarming possibility, but also its plausibility.[42]

[40] The US National Security Resources Board, 1950, 5. Cited in Collier and Lakoff 2008, 11.
[41] Collier and Lakoff 2008, 11.
[42] ibid.

Peter Galison shows how far reaching this transformation was. The Office of Civil Defense drew new lines of vulnerability for the United States.[43] New parameters were diagrammed, new zoning laws erected, new agreements were forged with industry to relocate factories to the outskirts of urban industrial hubs. Preventing nuclear attacks was something that could be theorized, and even implemented in diplomatic practice.[44] Mutual Assured Destruction was gamed out and improved upon with hopes that the "unthinkable" might never come to pass.[45] But there could no absolute certainty, so preventative strategy could not responsibly suffice in contrast to the presumed effects of strategic failure.

Civil defense was a proactive measure to reshape the built environment, to get ahead of the possibility that the industrial centralization of the United States might be a fault line in the mounting potentiality of a future nuclear attack. As the delivery systems of intercontinental missiles became more sophisticated, the chances for evacuation became less possible and new strategies required radical new conceptions of spaces of life and vulnerability. The bombs, in other words, could not be escaped. The question therefore became not "how can we survive?" but "how many can survive?" Or, perhaps better put, "how many would we *need* to survive?"

In a sense, the anticipation of the threat of nuclear war ushered in a new phase of the *concept* of what was at stake in national security. Be not mistaken that the concept now involved some kind of benevolence for the lives of American citizens. Rather, take from this that the notion of civil defense relocated the centrality of American institutions

[43] Galison 2001, 24
[44] Ghamari-Tabrizi 2000, 164
[45] Kahn 1962a and 1962b

to include its industrial economy and as a result the productive capacities of its labor force.[46] And this question or impetus of security endured long after the Cold War ended and the drumroll of nuclear annihilation quieted.

The dawn of civil defense introduced to security discourse not only a shifted object toward heightened concern for what now is called human security, but it had a lasting effect on the actually existing infrastructure of the United States. The prospect of war distilled into an existential threat, reorganizing the way that vulnerability was understood. According to Collier and Lakoff:

> The starting point in mapping urban vulnerability was to envision enemy strategy in a nuclear attack… In an era of strategic bombing, the question shifted: how did the enemy conceptualize the features of U.S. territory as a set of targets? [Civil defense planners] assumed that a potential attacker would plan an attack based on the same principles of strategic bombing that guided U.S. Air Force doctrine.[47]

U.S. Civil Defense planners considered the concentration of industry, of populations, locations of communications and transportation centers, civil governments, etc. in an effort to rethink how much of the critical infrastructure was in play for any given prospective attack.[48] Constructing "attack narratives" that informed "hypothetical attack" problems, imagination crept further into the anticipatory logics of national security, with both human security and critical infrastructure rising in priority.[49]

One cannot overstate the significance of the role anticipatory imagination plays in this process. Writers like Aradau and Van Munster will place imagination at the core of post-9/11 security processes under the banner of conjectural reasoning, but already in the

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[46] Galison 2001, 21-24
[47] Collier and Lakoff 2008, 17
[48] ibid
[49] ibid, 27-19

nuclearized atmosphere of the Cold War one can recognize the role played by imagination in influencing the concerns about what might come about in the event of an attack.[50] (It should also be noted by how much these transformations predate the birth of resilience theory.) The cartographic-literary imagination of security experts cascaded into entire discourses about future threats. In the first place they were important in influencing partners in government toward policy shifts; but they also became a discursive terrain in and of themselves in which city planners and emergency planners shared an imaginary produced by these maps.[51]

In the mid-1950s, the local archipelago produced by the distributed preparedness system of civil defense fostered a new level of ingenuity. Local officials began to realize that the cartographic imagination permitted by the vulnerability maps had produced the capacity to telescope from nuclear vulnerability to other kinds of vulnerability under their direct purview.[52] At the time, preparing for events affecting national security that would emerge from foreign adversaries existed as the sole purview of federal officials, but responding to other sorts of disastrous events fell to state and local officials because of the nonexistence of a federal emergency response agency: "At the national level, a civil defense system developed earlier than any comparable disaster planning or emergency management system. However, at the local level, the prime concern after World War II became to prepare for and respond to disasters."[53]

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[50] Aradau and Van Munster 2011
[51] Galison 2001, 21-24; Collier and Lakoff 2008, 20-24.
[52] Collier and Lakoff 2008, 24.
[53] Quarantelli 2000, 10. Quoted in Collier and Lakoff 2008, 24.

The new endeavor of what became known as "emergency management" seized on the landscape transformed by national-civil-human security in the nuclear age. But it remained largely a mosaic of interested state and local authorities until the formation of FEMA in the late-1970s, where in its founding the young agency enacted a new concept of security: "all-hazards" security and preparedness.[54] In its foundation by Executive Order 12127, FEMA unified previously unrelated agencies. Among others, "The Federal Insurance Administration; the National Fire Prevention and Control Administration; the National Weather Service Community Preparedness Program; the Federal Preparedness Agency of the General Services Administration; it transferred the Federal Disaster Assistance Administration activities from HUD; Civil defense responsibilities were also transferred to the new agency from the Defense Department's Defense Civil Preparedness Agency."[55] The breadth of agencies united beneath FEMAs umbrella was staggering in its diversity.

In short, the formation of FEMA began to generalize what had been initial planning strategies produced to react to the notion of nuclear annihilation. In migrating best practices from civil defense planning toward a centralized federal agency with expertise in what are known as "natural" disasters, as well as a range of other events, FEMA inaugurated a vision of security that went beyond the particularity of nuclear attack. It began to draw generalizable patterns of preparation and response where disaster could be thought, reacted to, and prepared for as a concept in and of itself.

[54] Lakoff 2008b
[55] See https://www.fema.gov/about-agency

Therefore, the concern with "all-hazards" security, as it is called, stems in practice from a complex history in US security practice derived from nuclear security and diversified to fit a range of future threats. All-hazards, meaning a configuration of security preparation that was flexible enough to allow strategists to prepare for crises *in general*, rather than pursuing the range of possible calamities in their individuated nature.[56] The logic of all-hazards planning found a central place in the formation of FEMA as a model of incorporating a range of strategies equipping the new agency to respond to anything and everything dangerous.

After 9/11 the all-hazards approach became a core planning initiative in the formation of the U.S. Department of Homeland Security (DHS), which incorporated FEMA under its authority. Initially FEMA's mandate operated within the parameters of "emergency federalism," which sought to create relationships at the federal level to help states and local governments respond to natural disasters.[57] After 9/11, FEMA's role in the newly formed Department of Homeland Security (DHS) maintained its mandate, but its new relationship to national security re-placed its techniques fully within the grasp of national security, and therefore folding civil defense into the logic of the war on terror, and less merely an agency poised to administrate between sectors of American government responding to what is often referred to as "natural" disaster.[58]

In this sense, all-hazards security metamorphosed from a generalized way of responding to the ways that an array of different American agencies might respond to disasters into an all-encompassing technique of anticipatory security pointed directly at

[56] Collier and Lakoff 2008, 24.
[57] Collier and Lakoff 2008, 14.
[58] Bullock et all 2009, 582.

the project of counterterrorism. The irony is that after the failures of FEMA in response to Hurricane Katrina in 2005, the agency came under a firestorm of criticism.[59] Its speciation as counterterrorist technique then migrated back into thinking about all-hazards again, in the broadest sense, partially responding to the range of ways that their failure to prepare adequately to hurricanes were, now, a failure to prepare for *all*-hazards could be seen as a failure of national security, this time as a fully securitized project, preparing for all things imaginably devastating – natural, technological, and moral.[60]

One touchstone expressing the full integration of such thinking into institutionalized aims of security is the 2007 revised *National Security Strategy for Homeland Security*. Its original version was the first such report published in the nascence of the formation of the Department of Homeland Security (it was published under the banner of the "Office of Homeland Security" and, in part, petitioned for the formation of DHS).[61] The 2002 report ruminated almost exclusively on the threat of terrorism. Regarding the revised *National Strategy for Homeland Security* (2007), Jeremy Walker and Melinda Cooper articulate that "[numerous and varied] 'catastrophic possibilities' span the divide between military and civil threats, encompassing both terrorist attacks and the destructive possibilities of natural disasters, climate change and infectious disease in a non-exhaustive 'full spectrum' list of contingencies."[62] This document, Walker and Cooper argue, most fully (at the time of their writing) demonstrates what they understand as the central tension inherent in security theories and

[59] There are many critiques, see Giroux 2006 for one of the earliest truly incisive treatments, esp pp. 37-44. US Congress's report is also compelling: U.S. Congress 2006
[60] Lakoff 2008b, 52-55.
[61] US OHS 2002
[62] Walker and Cooper 2011, 153

practices of resilience. That the union of complex system adaptivity and neoliberal economic theory is characteristic of "a governmental philosophy of nature and society so all-encompassing and resilient to critique that the effects of political interventions (and non-interventions) made in its name, even when catastrophic, seem as inescapable as the weather."[63] Their point, to be clear, was to reflect on the impermeability of the structural hegemony of this form of security. For Walker and Cooper, because the breadth of threats was so vague, resistance against its institutional capacities was at best obscure. But lurking in the sentence is a phrase seeming slightly odd, but really not at all given its context: "a governmental philosophy of nature and society so all-encompassing" had fused the moral (often referred to in the gendered language of "man-made") and natural disaster. This fusion was what was so "all-encompassing" as to unify nearly all threats imaginable under the aegis of a new philosophy of governmental security.

One cannot fault Walker and Cooper for not foreseeing what the next four years would bring. But by 2011, a new security directive would further deprioritize terrorism, therefore in a sense validating their claim of a "governmental philosophy of nature and society so all-encompassing," but also rendering their critique of resilience shakier for the way that they downplay an unfolding fade in the priority of counterterrorism. Consider George W. Bush's 2007 Cover Letter:

> Many of the threats we face – pandemic diseases, the proliferation of weapons of mass destruction, terrorism, and natural disasters – also demand multinational effort and cooperation… As we secure the Homeland, however, we cannot simply rely on defensive approaches and well-planned response and recovery measures. We recognize that our efforts also must involve offense at home and abroad. We will disrupt the enemy's plans and diminish the impact of future disasters through

[63] ibid 145

> measures that enhance the resilience of our economy and critical infrastructure before an incident occurs.[64]

One can read in Bush's pen an ambiguity in which the president recognizes on equal footing the threats posed by "pandemic diseases, the proliferation of weapons of mass destruction, terrorism, and natural disasters." But reading on, one can only see the haunting presence of terrorism. It is too difficult to imagine a president taking an "offensive" approach to pandemic diseases and natural disasters; and it is unlikely that he had anything else in mind but terrorism when writing about "disrupt[ing] the enemy's plans."

By 2011, a new directive, the *National Preparedness Goal* was published with the sole aim which "define[d] success as": "A *secure and resilient Nation* with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk."[65] Recognize the equivalence of "secure" and "resilient." In Chapter Two, I showed how the two concepts are more or less incommensurable, with security (the preventative goal

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[64] From Cover Letter of George W. Bush: US DHS 2007. The entire document is incredible, but the theme of "distributed preparedness" that I discussed earlier takes on a less spatial and more multi-scalar approach in the following which focuses on fostering a "Culture of Preparedness": "Our entire Nation shares common responsibilities in homeland security. In order to help prepare the Nation to carry out these responsibilities, we will continue to foster a Culture of Preparedness that permeates all levels of our society – from individual citizens, businesses, and non-profit organizations to Federal, State, local, and Tribal government officials and authorities. This Culture rests on four principles. The first principle of our Culture of Preparedness is a shared acknowledgement that creating a prepared Nation will be an enduring challenge. As individual citizens we must guard against complacency, and as a society we must balance the sense of optimism that is fundamental to the American character with a sober recognition that future catastrophes will occur. The certainty of future calamities should inform and motivate our preparedness, and we will continue to emphasize the responsibility of the entire Nation to be flexible and ready to cope with a broad range of challenges (US DHS 2007, 41.)."

[65] U.S. DHS 2011, 1; my emphasis.

outlined in Chapter One) still percolating with the desire to strategize for success; and resilience recognizing the ever-present possibility of failure against the inevitable event unthought. Adding to this, recognize that earlier federal documents had prioritized terrorism, even as the all-hazards approach would add other sorts of threats. This definition of success names *nothing particular* – or *all-hazards* – whichever is a better phrase for the very same idea.

Several pages later, a more detailed list appears outlining the kinds of threats national preparedness would likely face:

> - Natural hazards, including hurricanes, earthquakes, tornados, wildfires, and floods, present a significant and varied risk across the country.
> - A virulent strain of pandemic influenza could kill hundreds of thousands of Americans, affect millions more, and result in economic loss. Additional human and animal infectious diseases, including those previously undiscovered, may present significant risks.
> - Technological and accidental hazards, such as dam failures or chemical substance spills or releases, have the potential to cause extensive fatalities and severe economic impacts, and the likelihood of occurrence may increase due to aging infrastructure.
> - Terrorist organizations or affiliates may seek to acquire, build, and use weapons of mass destruction (WMD). Conventional terrorist attacks, including those by "lone actors" employing explosives and armed attacks, present a continued risk to the Nation.
> - Cyber attacks can have their own catastrophic consequences and can also initiate other hazards, such as power grid failures or financial system failures, which magnify the potential impact of cyber incidents.[66]

One wonders what all-hazards might *not* mean, especially given the frequency with which economic risks appear included in each category. In any case, with such a list, it is clear that preparedness means preparing for a full suite of calamitous future possibilities. Official U.S. security policy stresses the increasing range of "catastrophic possibilities,"

[66] U.S. DHS 2011, 3-4

thus creating a comprehensive category of urgent security concern. Instead, a comparative case between the 2007 and 2011 strategy documents underscores the growing list of "catastrophic possibilities" to encompass fully the range of imaginable high impact threats to "homeland security." Therefore if contemporary security responds to all imagined "catastrophic possibilities," then (i) it is a view of security planning that, rather than seeking to *prevent* future catastrophes, instead *accepts* disaster as inevitable or at least draws the range of threats to the limits of intelligibility; (ii) that security planning therefore abstracts *particular* catastrophic events into the *abstract* category of "catastrophic possibilit[y]"; (iii) rather than presenting a *proactive* form of security strategy, security measures instead are profoundly *reactive* against a self-constructed abstraction of catastrophic possibility. The triad stems from the incalculable nature of the coming catastrophe.

The effects of this are multifold. It means that the "openness" or generalness of anticipatory security practices do not result from resilience per se, but from the phenomenal ontological problem of governing indetermination.[67] It also means that the broad swath of imaginable future catastrophes emerged as problems of human security were coopted as techniques of conventional national security, and then repositioned as a general strategy of security, somewhat released from the task of prevention to a general framework of preparedness.[68]

The result, far from merely a transformation in the object of security from the standpoint of security professionals and their agencies, was in the broadest sense a

[67] See Chapter One above. Also, Anderson 2010a and 2010b; Adey and Anderson 2011 and 2012.
[68] Collier and Lakoff 2008; Lakoff 2008a and 2008b

normalization of catastrophe. Where once the catastrophe was a singular, anticipatable – albeit highly improbable -- phenomenon; now, all possibilities included, the future catastrophe is all but probable. *Something will occur, the future will determine its specificity.* In enclosing the entirety of possible singular catastrophes (plural) under the banner of the coming catastrophe (singular), all-hazards security had transformed the highly improbable into the entirely probable catastrophe to come.

IV. Conclusion: Normal Catastrophes and the Future

The groundbreaking work of Peter Galison, Stephen Collier and Andrew Lakoff generated incredible strides in recognizing the geneses of actual security practices in the West. Their efforts helped to move the needle for understanding national security beyond the possibilities monopolized by realists in international relations, and ushered in new logics from historical events that created the conditions for normal catastrophes' development.

Nevertheless, more work was still required to move political theories of human security from the singular to the general in terms of the conception of catastrophe as all and sundry looming calamity. Andrew Lakoff comes closest to my argument here in his essay, "The Generic Biothreat," in which he argues that transformations in security practices with specific regard to contagious diseases gave way to a more general set of practices of preparedness, rather than prevention.[69] Showing how emergency planning through experiential scenarios created urgency for policy makers, Lakoff argues that the general concept of "biothreat" became reconceived to the extent that a new apparatus of

[69] Lakoff 2008.

political power emerged – vital systems security – which came to supplant population security (which a reader with some familiarity with contemporary continental philosophy, without much effort, can translate as biopolitical security).[70] The effects of this shift indicate that the idea of biological threat ceased to require a *specific* response tailored to individual types of contagion and gave way to a broad apparatus of preparedness that would enable first responders and the security establishment to respond to *any* contagion realized. Lakoff's is a profound argument. But it remains narrowed by its empirical focus, biosecurity, which results in a generalized imaginary of preparedness he refers to as the "generic biothreat," which is at best a synecdoche for what I am calling "normal catastrophes," but less capable of explaining the shifts I attend to in the latter phases of the previous section when contagion stands on equal ground as hurricanes and terrorist attacks. Normal catastrophes, as the imagined general category for the coming catastrophe, is more all-encompassing; and, as a result, more fitting a term animating contemporary security imaginaries.

Lakoff – and this is especially the case in his co-authored work with Collier – is only interested in the modes of security that undergird "preparedness" or, as I organized it earlier, "resilience" when broadened to comport to emergent trends in future-oriented security practices and provision. But there is a clear history running through this period in which the largest efforts were certainly devoted to preventing the nuclear war's occurrence. The singular threat, outflanked. Further, Collier and Lakoff are overly focused on making the evidentiary argument for preparedness, which simplifies the

[70] Lakoff 2008b. Ben Anderson looks at such scenarios with reference to terrorist attacks in Anderson 2010. On biopolitics of security, see Dillon 2015.

stakes of the future catastrophe and how it became normalized as earlier chapters here have shown.

Leaving preventative strategies and the desire for protection to the side to focus solely on preparedness omits a critical element that broadens the impact of what the future catastrophe represents: an all-encompassing problem for human survival, even in its lack of reality, that beguiles security on all fronts – regardless if the technique is to create less vulnerable vital systems or making attempts to secure them in the more conventional sense. None of these is suitable to extend itself as a full account of what is at stake with future-oriented security practices. We now see a growing literature in philosophy and the social sciences trying to cope with the way that catastrophe seems impossible to contain in particular ways.[71]

Future-oriented security measures do more than animate preparedness. They also show the challenges of preventative, resilience, and preparedness strategies as a whole, hence the constant growth of their fields of concern. Rather than undetermined futures merely feeding these discourses and inspiring their development, one can see the discourses as a whole fabulating (or imaginatively fabricating) the future catastrophe as an endlessly expansive problem beyond discrete fields of expertise – with every imaginative expansion, so too the problem of future catastrophe becomes less particular and more general. As a discursive field future catastrophe registers enormous political force, not merely in security practices, but also in reorientations of thought.[72] Gesturing

[71] Stengers 2015, Nancy 2012, Perrow 2007
[72] Dupuy recognizes this problem and refers to it as "systemic evil," Dupuy 2004.

once again, but hopefully now with more grounding, where once catastrophic events were highly improbable, they are now extremely probable – even entirely normal.

Of course different catastrophes produce different consequences. Moral disasters and natural disasters have significant differences that after the fact renders them clearly unique from one another. The purpose of my analysis of the 2011 *National Preparedness Goal* was to show not how the events themselves would be conceived differently if they occurred, but the force of anticipation on the way they are conceived before the fact. It should stand to reason that the *National Preparedness Goal* demonstrates, in the eyes of the state, how even in their differences catastrophes are normalized as matters of life and death.

After Charles Perrow's work on "normal accidents," catastrophes are "normal" because they are more frequent.[73] Why? For Perrow, "accidents" are more frequent because of increasing technological complexity. It's more difficult to account for all of the things that can go wrong. Jean-Luc Nancy recently built upon this argument in linking nuclear power to global networks portending increased risk of planetary catastrophe.[74] That concern remains valid when considering technological catastrophes of catastrophic proportions (consider Fukushima or Chernobyl). But catastrophes are "normal," perhaps more importantly, for a second reason. Their incalculable nature in the sense that I tried to articulate in the previous chapters – that in the truest sense, future catastrophes often escape the human capacity to determine their occurrence – normalizes their particularity to the extent that discrete, highly-improbable events become envisaged,

[73] Perrow 1984
[74] Nancy 2012

not as an individual hurricane or terrorist attack, earthquake, or pandemic in all of their distinctive capacities – but as, if one can put it this way unironically, as *merely* catastrophes, as a normalized catastrophe whose particularities are less important than their scale as catastrophic. Normal catastrophes are precisely that: entirely regular because of their categorization, not because of their particularity. They become particular only after they become distinctly determined as an event in the present, leaving the future behind, transpired.

Once, in the province of thinking about future catastrophes, a discrete, specific catastrophe was thought. Lists and menus were prepared, etc. Now, "the coming catastrophe" has largely supplanted this specificity and rendered the looming disaster abstract, normal. Not only are they normal, they are expected. Or, as Claudia Aradau and Rens Van Munster aptly put it: "Although not present yet, the future of catastrophic events seems taken for granted in current discourse: The catastrophe *will* happen."[75]

In sum, if we are to understand the politics of catastrophe as it is so often called, we must move simultaneously in two directions: We must move away from focuses on singular kinds of threats to understanding the discursive affect of normal catastrophes on governance; but we also must understand the ways that the emergence of normal catastrophes come to preoccupy more than just agents of national security. In other words, we need tools to recognize the general effects of the coming catastrophe, how its generality renders its effects pervasively as a cultural force; and how those two processes shape a contemporary rationality that I will now begin to describe under the banner of "catastrophism." Or, to ventriloquize Hans Magnus Enzensberger:

[75] Aradau and Van Munster 2011, 13.

From the Middle East conflict to a postal strike, from punk style to a nuclear reactor disaster, anything and everything is conceived as a hidden sign of an imaginary totality: catastrophe "in general." The tendency to hasty generalizations damages that residual power of clear thought that we still have left. In this sense, the feeling of doom does not lead just to mystification. It goes without saying that the new irrationalism which so troubles you can in no way solve the real problems. On the contrary, it makes them appear insoluble.[76]

[76] Enzensberger 1978, 78

PART TWO

Catastrophism, Rationality, and Contemporary Life

4

Catastrophism I: A *Dispositif* of Anticipation

I. Introduction

It is a fact of contemporary life, as Didier Fassin and Mariella Pandolfi put it, that "images of catastrophe form part of our everyday surroundings."[1] For so long the province of dystopian literatures and cinemas of disaster, catastrophic events have edged into the common imaginary with rising frequency.[2] Flashes of past storms, earthquakes, terrorist attacks, contagious viruses, economic collapses, verging wars surround from countless directions. Taken together, a bombardment of calamitous moments metamorphose into a compulsion, a political force commanding new ideas and institutions of security against a new, and seemingly endless, past and future punctuated by disaster.[3] From the infrequent and highly improbable discrete catastrophic event

[1] Fassin and Pandolfi (2010), 9.
[2] One provocative study is Thacker (2011). See also, Paik (2010).
[3] Catastrophe as "punctuation" – especially as it pertains partitioning past, present, and future – is a common theme in the broad literature on catastrophe. This owes less to its etymology than its persistent importance in the academic discipline of geology, for which a central theory of historical change also referred to as "catastrophism" holds that rather than a continuous gradual evolution of geological change, episodic, abrupt events led to dramatic

emerges an altogether probable expectation, an abstract concept of extraordinary political importance: the looming catastrophe.[4]

Does the preoccupation with future catastrophes make sense? I do not mean to ask whether or not it is sensible to be fearful of unknown futures. Nor do I intend to justify politics rooted in securing against abstractions like "uncertainty," or to ask how to protect against the unknown.[5] But rather I mean to ask in what ways can we understand the

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shifts in geological constitution. To my knowledge, none of the political theorists engaged here trace this history, which is elaborated more in footnote 26 below. Nevertheless, the theme of punctuation and rupture appears frequently in theoretic texts about catastrophe. See for example Ophir 2010, 61; Vázquez-Arroyo 2013, 741-43; Vázquez-Arroyo 2012, 212; Neyrat 2008, 35; Aradau and Van Munster 2011, 3, 10-11.

[4] Disaster, or rather post-disaster, sociological studies are now a century old. For influential sociological studies see: Prince (1968), Sjoberg (1962), and Quarantelli (1966, 1977, 1985, 1987a, 1987b, 1989a, 1989b, 1992, 1993a, 1993b, 2006). A vast scholarly literature has emerged on the imperative to prepare for future disasters of all types. Far-reaching attempts to provoke a shift in public consciousness concerning future catastrophes include Flynn (2004), Perrow (2007), Posner (2004), and Sunstein (2007). Many of these books attempt to create broad introductions that necessitate new ideas about human life in an age of extreme volatility. They are distinct from another more scholarly body of literature analyzing the social and political landscape as a result of changing security procedures (Adey and Anderson 2011; Anderson 2010a, 2010b; Aradau and Van Munster 2007, de Goede 2008; Dillon 2007; Ewald 2002). These pieces all seek a perspective on shifting practices of security in response to some of the issues provoked by the former group of public intellectuals. Yet few contemporary writers have aimed at the notion of catastrophe (or disaster) conceptually in a way that can address the conceptual prowess of the term in the way that I do in earlier chapters here. This present chapter may be seen as a supplement to the chapters preceding it in supplying a way of thinking that complements such a persistent trope as catastrophe. Several other recent attempts have been made on this front. Other writings with whom I share some sentiments include Lakoff's notion of the "generic biothreat" (2008), except that my aim is to account for the expansive nature of such a dynamic concept of catastrophe rather than a specific animating species of it such as is the case with biosecurity. In the next chapter I draw on Neyrat (2009), Dupuy (2002, 2005, 2009), and make reference to Walter (2009) to develop this broader conception of *catastrophism* before bringing it under critical scrutiny.

[5] Aradau and Van Munster claim that this is the central cause of contemporary politics of catastrophe, 2011, pg. 6. I contest this claim in Chapter One. Further, Kevin Grove has built a provocative research program surveying the implications of insurance, financialization, and risk as means of disaster resilience and catastrophic future preparedness. He, like Aradau and Van Munster frequently deploys the notion of the dispositif in order to contend with the

emergence of a question, or even more so, the logic of a collective disposition. How is the sensible concern for possibly destructive future events, not only produced, but proliferated? In short, I mean to ask about the cultural orientation to one way of being, to prioritizing one question over another, performed in a way that is productive of a politics. How do sensible questions manifest politically and in widely divergent corners of life?

Much has been written lately about the range of ways that the threat of looming catastrophes has been seized upon to depoliticize populations,[6] about how by way of systems of governmentality threats divide populations into meaningful and less meaningful lives who suffer in differing degrees of tolerability,[7] and how the spectre of the biopolitical usurps life at every sector rendering all and sundry subjects to the protective mechanisms of catastrophe management.[8] Still more work has been devoted to regimes of expertise in which human life has been exposed to mounting danger, transforming political life into a life of constant exposure to undetermined calamity.[9] Here, I make an effort to animate the pervasive concern for the looming catastrophe in a different way. First, I move away from solely expert knowledge to probe the furthest reaching effects of the intersection of fear, anticipation, and indetermination. In this way I raise the importance that at that intersection rests a process of meaning-making that suffuses political life. Second, I argue that this process of meaning-making, while acknowledging the fact of repressive regimes, should be thought first and foremost as

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broad range of institutions tending to these issues, though frequently deploys it, like many others, as an empirical tool which I attempt to build upon below. See Grove 2012 & 2014 for examples.

[6] Aradau and Van Munster 2011, 9; Vázquez-Arroyo 2013, 745

[7] Ophir 2010, 62-65

[8] Neyrat 2008, 35-49.

[9] Evans and Reid 2013; Evans and Reid 2015.

positive in the sense that it animates a field of political thought, behavior, and orients subjects toward their own finitude as a fact of contemporary political life.

I take as inspiration the following methodological principle, argued by Michel Foucault when introducing his landmark *Discipline and Punish*: "Do not concentrate the study of the punitive mechanisms on their 'repressive' effects alone, on their 'punishment' aspects alone, but situate them in a whole series of their possible positive effects, even if these seem marginal at first sight. As a consequence, regard punishment as a complex social function."[10] Central to Foucault's idea is the notion that to understand the penal system only in its function to repress deviant or abnormal forms of behavior would be to elide the broader implications of both the conjuncture of meaning-making (synchronic epistemological understandings) with the juridical framework, but also that focusing only on the repressive nature of the penal system would foreclose the broader implications of how such a conjuncture animates a wider mode of thinking. By focusing only on the repressive measures of coping with criminality in the period, Foucault would not have been able to understand the positive (read in a way marking agency, not normative measure) elements involved in what emerged as a concept of the disciplinary society.[11] I adopt a similar distinction: Here, I am concerned with the ways that discourses of the looming catastrophe are not merely repressive, alienating, depoliticizing, and so on; but animating, orienting, and politicizing. The hope is that by

[10] Foucault 1995, 23.

[11] Edward Said deployed a similar methodological principal in introducing the concept of Orientalism: "…my whole point is to say that we can better understand the persistence and the durability of saturating hegemonic systems like culture when we realize that their internal constraints upon writers and thinkers were *productive*, not unilaterally inhibiting" (Said 1978, 14; original emphasis).

admitting the positive categories of catastrophism that, as Foucault will remark only several lines later, and with only nominal adaptations, I can reveal "some common matrix… in short, mak[ing] the technology of power the very principle both of humanization of the [future-oriented] system [of imagining human survival] and the knowledge of [political society itself]."[12]

As such, in this chapter I aim to configure the groundwork for a political theory of catastrophism as a far-reaching political rationality. I proceed by overcoming some conceptual obstacles and beginning to outline the complexities of contemporary catastrophism. The first such obstacle is presented by the sparse but rich body of work advancing the similar sounding, yet in the end, very different concept of catastrophization.[13] Though there are many similarities between the conceptualizations of catastrophization and catastrophism that I put forth in the following two chapters, there are also critical differences. Two come immediately to mind. First, theories of catastrophization as advanced by Adi Ophir and Antonio Vázquez-Arroyo involve a certain degree of intentionality in the way that catastrophization is understood politically. Ophir and Vázquez-Arroyo differ – in brief, Vázquez-Arroyo does not merely deploy Ophir, but instead operates from a crack in Ophir's work building a parallel conceptualization – but they cohere around an understanding that catastrophization is a process carried out by a political or social authority.[14]

Catastrophization in this sense is something that is *done*; catastrophism, in the sense that I want to use it, is more analytic—a diagnosis, if you will. One does not intend

[12] Ibid.
[13] Specifically, I engage Ophir 2008 and Vázquez-Arroyo 2013.
[14] I elaborate this claim exhaustively in the first substantive section below.

to be a catastrophist.[15] Importantly for a political theory, moreover, a collective does not intend to (re)produce itself as catastrophist. Catastrophism is what I want to name a rationality inclusive of a range of different beliefs, orientations, and considerations about human survival in volatile times. It is my sense that for both Ophir and Vázquez-Arroyo (though slightly less individually agentic in Ophir's sense) that catastrophization is a political practice undertaken in order to dominate, or less so in order to destabilize, and at very least in order to maintain a particular mode of privilege or centrality while others languish at the margins; or, to use Vázquez-Arroyo's words, catastrophization "depoliticize[s]" by way of "authorizing specific forms of power."[16] Ophir and Vázquez-Arroyo in short offer a theory of catastrophization that is deployed as a political tactic to disenfranchise large populations while securing power for others. For each, therefore, the concept is political in the sense that it names a use or abuse of power in the repressive sense.

Likewise, Ophir and Vázquez-Arroyo conceive of the material that becomes discursively catastrophized as more or less already extant. Through the process of discursive catastrophization as they outline it, the threat of catastrophe represented in discourses of catastrophe exists as the condition of possibility for catastrophized speech. Plainly put, in an economic crisis for example, discursive catastrophization offers the

[15] I emphasize that, in the sense that I am developing catastrophism as a concept, one does not intend to be a catastrophist. In the following chapter I explore two thinkers, Jean-Pierre Dupuy and Frédéric Neyrat, who each in their own ways advocate for a certain kind of intended catastrophism. Dupuy urges an "enlightened catastrophism" or "rational catastrophism" while Neyrat acknowledges a catastrophism that take the shape of a "légitime démence" [legitimate madness] (Dupuy 2002: 216, 213; Neyrat 2008, 35).
[16] Vázquez-Arroyo 2013, 747, 758.

choice between economic crisis or economic catastrophization.[17] Discursive catastrophization offers no alternative. This may seem a trivial observation, but the way that discursive catastrophization operates emphasizes the obvious threat and downplays the imaginative. This emphasis will be inverted in my argument. I will try to show the importance of creating fictions about future catastrophes instead of merely drawing on a current crisis in order to exert political power.

Claudia Aradau and Rens Van Munster's important study of catastrophe's place in security culture differs from Ophir and Vázquez-Arroyo in this regard. Recognizing that security experts by definition lack important information about potential threats, Aradau and Van Munster argue that a "conjectural reasoning" is deployed which "constructs an explanation out of apparently insignificant details."[18] In other words, where Ophir and Vázquez-Arroyo found their treatments in presentism and historical reference, Aradau and Van Munster focus on the ways that security professionals necessarily produce ideas about the future, which in turn reflect upon the urgency of action in the present. The process by which conjectural reasoning works is productive of a wide range of effects within the security community. Not least, they argue, is a general

[17] Vázquez-Arroyo begins his important essay on the matter with this very example, however anecdotally. See Vázquez-Arroyo 2013, pg. 739.

[18] I address this in detail in Chapter One, but its importance differs here. Earlier, the subject matter regarded how critical thinkers considered speculation as an important response to "uncertainty." Here, however, I am making reference to the ways that speculation – or their more technical conceptualization of "conjectural reasoning" manifests in two ways that are important to the work of this chapter: through imagination and also through how they conceive of it as depoliticizing (Aradau and Van Munster 2011, 31). With respect to the ambiguous relationship between risk and uncertainty, see Best 2008. On imagination and risk management see, Salter 2008 and de Goede 2008.

awareness of the fault lines inherent in conjectural reasoning because, like discursive catastrophization, it too tends toward depoliticizing effects.[19]

The notion of conjectural reasoning that Aradau and Van Munster advance allows for an analysis that allows for both the imaginative process of inventing future scenarios, as well as the heterogeneous ways in which that project is carried out. Deploying the concept of a "logic of strategy" derived from Foucault, Aradau and Van Munster manage the different imaginative projects undertaken by security experts as not homogenizing, but disparate—and remaining disparate—as a means of explaining the core focus of contemporary security. Inadequate knowledge of undetermined futures requires a litany of imaginative projects carried out by security experts. (It shouldn't go unmentioned that Aradau and Van Munster also think that the rhetoric of catastrophe is depoliticizing, and for similar reasons—because it mitigates democratic power—but their emphasis is on a different sector of political life.)[20] In Aradau and Van Munster, Foucault's logic of strategy allows them to maintain an analysis of the "disparate" motives and iterations of security experts in order to show how, despite their different projects, there is a common organizing principle. The logic of strategy proves useful in clarifying the community of security experts whose work relies on imagination ("conjectural reasoning") in order to produce ways of thinking about future catastrophes as security problems. What is key in their text is demonstrating how 1) imagination is central to linking discourses of

[19] Ibid, 9.

[20] They cite Wendy Brown as their inspiration for investigating the "depoliticizing effects of conjectural knowledge and the problematization of imagination and aesthetics within an anticipatory regime of securing the future. As Wendy Brown has aptly put it, depoliticization involves 'construing inequality, subordination, marginalization, and social conflict, which all require political analysis and political solutions, as individual and personal, on the one hand, or as natural, religious, and cultural on the other' (Brown 2006, 15)."

catastrophe to presumptions about security, and 2) how that connection, rather than being depoliticizing, *could*, rather, be extraordinarily politicizing in the sense that it animates culture, influences how populations think and about what, and because it creates a more totalizing desire for security from a looming phenomenon that, as yet, exists only as a matter of imagination anyway.[21]

But Aradau and Van Munster's assessment of the differentiated conjectural reasoning of security professionals, while promising as an insight into expert knowledge trying to imagine the next terror attack or weather event, is not as far as a "politics of catastrophe" can go.[22] Thinkers like Ophir and Vázquez-Arroyo have taken us further by considering the ways that the discourses of catastrophe carry outside of security institutions as realms of expert knowledge. In the body of work advanced by Ophir and Vázquez-Arroyo, despite focusing mostly on only one iterative mode of political power (authority or domination), their attempt to show the broader effects of catastrophic discourse makes an attempt to diagnose more widely how a concern for catastrophe produces a "politics" more than, as I would insist of Aradau and Van Munster, a "politics of security experts." To that end I argue that the politics of catastrophe requires a further-reaching theory that incorporates logics of discourse (as Aradau & Van Munster, Ophir, and Vázquez-Arroyo all do in different ways), with an articulation of power that is encompassing enough to cast a broad net on a wide scale concern for future catastrophic events. In fact, catastrophism as I will outline it treats all that can be imagined as a potentially dire threat to existence, to survival, prioritizing one kind of living – resilient

[21] Derrida 1984.
[22] Aradau and Van Munster 2011, 84.

life – over another, a life in common.[23] So it isn't that catastrophism is depoliticizing in the sense that it takes issues of inequality and renders them secondary to politics. Catastrophism takes one kind of living and renders it secondary to another kind of living; it takes survival over equity and commonality. This is a move of utter preemption in which the preventative mode of securitization, occludes the emergence of a kind of living in which the common is of futile concern when compared to species annihilation, to cite only one worst case scenario.[24]

The result should be a political theory of catastrophe that can articulate why so many – security experts, cultural authorities, heads of state, as well as everyday people – are *oriented* to questions of catastrophe to articulate human well being and survival. As a result, I argue that a political rationality (catastrophism) best articulates the zeitgeist of the present. And in the end, an effective political theory of catastrophe must rightly be a political theory of catastrophism.

I argue as a consequence that political scientists need to think more seriously about the political rationality that orients human beings in their everyday lives toward concern about their own finitude. By rationality, I mean the assimilation and reproduction of meaning. I mean to think about rationality as the governing discursive mechanism of what makes decisions, ideas, and themes about life rational; as constructive of a rationale. In short, I want to use this concept to help isolate a process in which meaning is made, for what purposes, and how it is received. The process as a result involves both the production and the metabolism of knowledge. But rather than going so far as to being a

[23] See Evans and Reid 2015.
[24] This perspective is the subject of the next chapter.

theory of cultural knowledge, I want to examine the presence of certain kinds of problems – in this case the concern for catastrophe as a cause of injury and death – as a symptom of knowledge production. As a result, when I evoke the concept of rationality, I stop short of considering it as a Weberian iron cage, as instrumentalizing the decisions and activities of political subjects, and consider it deductively. Where I think we can see a diverse set of voices operating through similar logics, I think we can relatedly wonder if they don't share similar themes. In considering the origins and organizing principles of these themes, rather than theorizing their points of beginning, I instead use their presence diagnostically, almost empirically, to determine their presence. In this sense, I claim that because of their presence, I ought be able to at the very least argue that there are shared dispositions in common by those who voice concern. This is the link between catastrophism – the name I give to this rationality – and what I use in order to link the voices across their differences, what Foucault calls a dispositif.

The connection drawn between catastrophe and finitude, as transmitted and associated through a range of discourses, represents a forceful politics of contemporary rationality and consequently defines what matters most in political society. We should not err in thinking that such a rationality lacks political force because it is not necessarily an ideology, or because it works in many different ways, and for many different kinds of people, at a range of places on the socio-, economic, ethnic- and racial spectra. Instead we should understand precisely how powerful it is because of its differentiation, because of how many corridors of contemporary political life that it haunts, because of how it rationalizes a set of problems. In turn, another consequence of this chapter is to likewise

argue that political rationality should be recuperated as a matter of political theoretic contemplation, and toward that end I lay the theoretical groundwork for a concept of political rationality that is as differentiated in its application as it is widespread in its prevalence.[25] I try to present an understanding of political rationality deeply entrenched in anticipatory logics, profoundly affected by notions of insecurity, and because of their links between danger and survival, fully political in nature. In referring to it as *catastrophism* I distinguish from the usage that some writing in French might mean it – which is closer to a doomsayer – and to evoke a geological history of change, that is different from the scientific concept of gradualism, a history of surprising events where catastrophe drives a planet's greatest geo-ecological shifts.[26] I don't belabor this point,

[25] By "as differentiated in its application as it is widespread in its prevalence," I mean to insist that its iterations are vastly heterodox and multiple, and though far-reaching, also far from homogenous. In this sense I share much with Aradau and Van Munster's deployment of Foucault's concept of the "logic of strategies" insofar as their use of that concept has fidelity to his critique of dialectics (Aradau and Van Munster 2011, 32). Foucault wrote and spoke of this concept many times throughout the late 1960s and early-mid 1970s, but the passages that are particularly of note to the way that Aradau and Van Munster (and to me) are those that are more methodological in their refutation of dialectics. This because, in a rather Deleuzian way, Foucault meant by this term to disavow the move in dialectical reason that, in his observation, produces a resolution of contradictory terms within a homogenization when confronted with difference. Instead, the function of the logic of strategy "is to establish the possible connections between disparate terms which remain disparate." (Foucault 2008, 42).

[26] Catastrophism is most frequently understood as a technically rooted theory of historico-geological change resulting from episodic ruptures rather than geological theories of development resting on uniform evolution. Put well by Rudolf Trümpy in 1980, "We have come a long way from the positivist, ruddy-faced uniformitarianism of ten years ago. Geologists are beginning to realize that even *improbable events become probable* during a sufficiently long time span. Catastrophism is probably the wrong word, but episodicity and periodicity… loom large in the minds of today's geologists" (quoted in Ager 1993, xvii; emphasis added). For an accessible treatment of the notion of catastrophism from scientific standpoint, see Ager (1993) and also Palmer (2010). For a more conceptual history tracing changes in theoretical understandings of catastrophism, see Huggett (1998). For an attempt to appropriate some shared senses in the way that I use catastrophism in this chapter into a political framework, see Lilly (2012). In a radical vein, Negri repeatedly refers to the "catastrophism" of Marx in his seminal *Marx beyond Marx* (1991). Nevertheless, while

but I want its history in the English language to inflect the name of the concept. It is an excavation of a concept that seems all the more appropriate in the dawning age of the Anthropocene.[27]

In order to carry this out, this chapter proceeds as follows. First I outline the recent interest in "catastrophization" as encapsulated by the writing of Adi Ophir and Antonio Vázquez-Arroyo. In this section I outline their various meanings of the term catastrophization because it is so close to the word that I will later deploy (catastrophism). More importantly, I want to show how important their conception of catastrophization is to a politics of catastrophe as I understand it, not least because of their attempt to show the broader implications of discourses of catastrophe. In this section I offer a partial critique along two related lines of inquiry. First, I critique the thesis most clearly represented in Vázquez-Arroyo that discursive catastrophization (the process of invoking catastrophe to political ends) simultaneously depoliticizes as it authorizes specific modes of power. This critique is leveled not because the claim isn't true, but because it is too narrow to encapsulate a broader understanding of how discourses of catastrophe involve entire populations in the sense of restructuring lives toward notions of security, a conceptualization that I think is fully political in nature. Secondly, I critique this body of work on how it is organized as an either-or construction from immediately available discursive materials. This part of the argument means to insist that discursive catastrophization based in rhetoric and narrative as put forth primarily by Vázquez-

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Negri's reading of Marx may be his most indispensable text, his conceptual development of catastrophism goes little further than to deploy the everyday French, meaning something closer to a doomsayer.

[27] See Chakrabarty (2009) and Dalby (2007), for example.

Arroyo addresses a narrower list of particular problems presented by discussions of catastrophe. As I show afterwards, catastrophism relies on fictionalization as a broader cultural production.

In the second substantive section, I offer four vignettes offered as exemplars intended to show the diversity of cultural production encompassed in my claim that the cultural production at the center of catastrophism remains disparate in terms of motivation, political orientation, and even manners of expertise. The intention of this section is to promote fictionalization as intrinsic to widely varied discourses of catastrophe. In so doing, I try to show the ways that very different perspectives will deploy similar ideas about catastrophe and security. The texts that I interpret in this section were selected because of the ways that they portray, in explicit language, their motives. This is not arbitrary. Instead, I have chosen authors whose political positions are explicit. Only by reading across their explicitness can the idea that they are truly different except for their deployment of catastrophe be understood. My explanation that their voices, together, articulate the presence of a rationality depends not on their similarities, but on how unrelated they seem, save the way that they seem to require a fictionalization of future threats in order to create urgency for their narratives.

In the third section, I briefly discuss the social scientific theory of "unintended consequences" as a way to establish some important differences between how I understand the emergence of a rationality of catastrophism. In essence, I try to disintinguish between sociological theories that place purpose and intent at the forefront of considerations of social order. In distinguishing my thesis from the literature of

unintended consequences, I introduce another well known but rarely closely interpreted concept – the *dispositif* – through which I argue that the logic of strategy motivating contemporary security discourse – catastrophe – should be understood by way of a governing rationality – catastrophism – which is the effect of so many different discourses persisting simultaneously in their difference. In the end, I argue that the "politics of catastrophe" that authors often isolate can only be understood by way of a broader, more cultural production of rationality by way of the discourses about human survival in a time when precariousness governs the political question of survival itself.

This chapter relates different scenes of contemplation and practice meditating on the future of human life and its security against undetermined futures. What I want to show is a commonality amongst different modes of thought, across different kinds of writing, to gather various discourses that exert political force because they rationalize certain problems. In so doing, what I hope to accomplish will articulate a logic shared across sectors of political thought and practice and will acquaint what seem to be disparate modes of writing, united by a common concern for the future of human survival. In other words, I introduce various voices of catastrophism. After bringing together such different modes of thinking, I outline what Foucault calls a dispositif, and consider it with reference to the emergent awareness of catastrophe. Foucault's well-known yet underdeveloped concept, which he clearly outlines in an interview from 1977, in his own words:[28]

[28] The conversation, originally published as "Le jeu de Michel Foucault" in *Ornicar?* (10 July 1977), was collectively held between Foucault and Alain Grosrichard, Gerard Wajeman, Jaques-Alain Miller, Guy Le Gaufey, Dominique Celas, Gerard Miller, Catherine Millot, Jocelyne Livi, and Judith Miller.

> What I'm trying to pick out with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions—in short, the said as much as the unsaid.[29]

Appearing more and more over the past decade, the dispositif succeeds as a notion of great utility to writers seeking to portray relationships among diverse phenomena.[30] But while many deploy the notion of the dispositif, as I will argue later, it is so often meant to articulate a kind of theoretic empiricism allowing qualitative thinkers to associate relationships across many fields of objective knowledge in order to portray something of a unity between systems, discourses, and objects—in short, to determine a causal structure. Yet the dispositif is so often only uncritically deployed and rarely interpreted. In the final part of the chapter I show how the empirical aspect of this concept—the "thoroughly heterogeneous ensemble"—while useful is insufficient, only serving to unite what Foucault intends by the "said" in Foucault's concluding phrase. Failing a closer reading, the dispositif only identifies relationships between different things, making it an analytical tool of empirical identification.

What I try to do with the concept insists that the "heterogeneous ensemble" indicates an unanswered question: The "said" is often empirically clear enough, but what is the "unsaid" that unifies the ensemble? How do the wide range of heterogeneous discourses and practices, institutions and objects cohere? Moreover, *in what* do they cohere? I argue that, in the case of contemporary concerns and pursuits to imagine and therefore prevent the occurrence of future catastrophes, that the "heterogeneous

[29] Foucault, M. 1980, 194.
[30] See for example, Agamben 2009; Braun 2014; Bussolini 2010; Dillon 2008; Esposito 2012; Peltonen 2004; Pløger 2008; Raffnsøe 2008; Shapiro 2011; Shapiro 2013.

ensemble" should be understood as only becoming notable as effects of a common rationality that renders them necessary; a rationality that I pursue, again, as "catastrophism." Only once we understand the unsaid as catastrophism can we return to the empirical order to understand the cyclical reproduction of said and unsaid, cultural production and rationality, catastrophe and catastrophism.

Therefore, ultimately, below I outline only the iterations of a political rationality adequate to all the recent attention given to catastrophe. Even unlike minds and subject positions share such a rationality; a rationality inspiring and perhaps even governing a political order. Catastrophism is, in the words of Frédéric Neyrat, "a legitimate madness," a sensible obsession.[31] As such, I join together a range of different writings, which occupy different corridors of thinking and different genres of communication, with strikingly similar themes and concerns. Ranging from literature to ethical philosophy, and from secret programs bringing security analysts together with novelists, and including public intellectuals calling for strengthened "national purpose," we see the deployment of catastrophe issued as a distinct possibility, as a common frame of reference. Catastrophe thus emerges—is thus invoked—in order to draw readers together. An assumption hidden within each of the texts I read below evokes the abstract force of massive disaster and appeals to the figment of a reader's most vivid imagination. A tacit understanding intimated, a speculation of a sensible response, a common rationality. I have established the political force of experts elsewhere;[32] here my goal is to register its broader presence.

[31] "Légitime démence," Neyrat 2008, 35.
[32] See chapters 1 and 3.

II. The Catastrophization of Political Life

In pursuing a political theory of catastrophism, I want to show how the cultural production surrounding future catastrophe intersects with, not only desires for security, but also political life more broadly. Antonio Vázquez-Arroyo pursues a similar agenda that at least on its surface seems analogous in his work to understand what he calls "the catastrophization of political life."[33] In this section I mean to distinguish what follows from this notion as well as the important work produced by Claudia Aradau and Rens Van Munster in their agenda-setting book *The Politics of Catastrophe*. Each of these contributions are groundbreaking in their own right, and with this chapter (and dissertation) I intend to build on this pursuit. But my more critical perspective is that each is also limited by an emphasis on the process of what Vázquez-Arroyo (drawing on Adi Ophir) calls catastrophization. This section elaborates that claim, and following sections intend to build upon it through my insistence that their limitations stem from their lack of engagement with why the question of catastrophe is supported by a broader political rationality that renders their subject matter urgent in the first place. For Vázquez-Arroyo, his notion of the catastrophization of political life emerges from an understanding that discursive catastrophization is inherently political and aims to disenfranchise – what he insists is a "depoliticized" politics.[34] In Aradau and Van Munster, their focus on security experts and the war on terror is too narrow to account for the broader socio-cultural interest that, not incidentally, Vázquez-Arroyo attempts to capture more richly in his analysis. Yet both tend toward a more focused regime of catastrophization wherein the

[33] Vázquez-Arroyo 2013, 745.
[34] Vázquez-Arroyo 2013, 747.

mobilization of concern for catastrophic events creates an atmosphere of political exploitation. I aver that there exists a mode of cultural reproduction in which there is a cycle of discursive production among many sources – the empowered and the marginal, the expert and the quotidian – that produces broad-scale social concern for catastrophe over other political modes of concern.

In other words, a political theory of catastrophe must rely at least in part on an understanding of the proliferation, pervasiveness, and reproduction of how it makes sense to mobilize and fear catastrophic events. Such an understanding must also account for how broadly such a concern applies. And in so doing, in order to be effective, such a theory must account not only for uses and abuses of discourse in monopolizing power relations (as in Vázquez-Arroyo), or the limited, regardless of prominence, force exerted by expert knowledge (as in Aradau and Van Munster), but in a broad complex of discursive deployment.

In trying to outline the terms of a wide-reaching political theory of catastrophe, as I outlined in the introduction above, I noted the importance of accommodating disparate approaches to knowledge production. Aradau and Van Munster do well in using Foucault's "logic of strategy" in order to describe the various approaches to security expertise, but they are unable to approach a broader "politics of catastrophe" because they are too limited in their scope.[35] Vázquez-Arroyo and Ophir attempt this in a more ambitious way. Ophir and Vázquez-Arroyo are more interested in arguing for a broad scale diagnosis of the effects of discourses of catastrophe. Hence Vázquez-Arroyo's insistence that the discourses of catastrophization so often result in a "catastrophization of

[35] Aradau and Van Munster 2011, pg. 32.

political life." His interest is thoroughly diagnostic, as Aradau and Van Munster would have it, of a "politics of catastrophe" insofar as his notion of the catastrophization of political life means that the discourses of catastrophe *produce* effects to the degree that they reshape political life itself. Yet his theory of the catastrophization of political life only articulates one mode of repressive political power as it manifests through discourse.[36] His insistence on the use of catastrophization to authorize modes of power that disenfranchise is effective, but only to the degree that it articulates one facet of discourses of catastrophe. So, Aradau and Van Munster succeed in showing how disparate means of discursive logic can, not only endure, but cohere. Yet their analysis cannot show how such a process, itself, coheres in a more general sense because it lacks a theory that governs it. Vázquez-Arroyo succeeds in his effort to articulate the ways that discourses of catastrophe can reach beyond explicit discourses of security as often presumed to be monopolized by security experts, and shape the cultural contours of political life. Yet his conception is too narrow in its conception of power-as-repressive political authority to explain the complex and broadly persistent discourses at play. We therefore require a theory that can account for these shortcomings of limited discursive range and assert a concept that improves on these already very productive studies.

[36] By this I mean that Vázquez-Arroyo commits to multiple connotations in which the "catastrophization of political life" takes place, but only explicitly follows one of those available paths. As a result, in his essay only the power to dominate and disenfranchise receives attention as this mode animates his notion of catastrophization. It could be put another way: rather than "dominate and disenfranchise," there is a sense of opportunism that coheres as well in the way that he sees Homer-Dixon's "the upside of down" motivating the process of discursive catastrophization. See Vázquez-Arroyo 2013, pg. 745; and Vázquez-Arroyo 2012, pg. 212.

The recent emphasis on catastrophe in political theory has not avoided the question of discourse. Vázquez-Arroyo, for example, asks explicitly what forms of discourse accommodate the politicization of catastrophe. Following Adi Ophir, Vázquez-Arroyo introduces a concept that advances our understanding of the politics of catastrophe and how it affects political life itself. Vázquez-Arroyo articulates the "rhetorical strategy" of discursive catastrophization and formulates the concept of "the catastrophization of political life" in order to give shape to its effects. For Vázquez-Arroyo, narratives of catastrophe threaten populations in ways that authorize "specific forms of power":[37]

> …the imagery of catastrophe is frequently misrecognized and thus deployed as part of particular narratives to authorize specific forms of power… the threat of catastrophe is a powerful narrative and rhetorical device to invoke and authorize otherwise unpalatable political practices and policies…[38]

At stake here is the relationship between rhetoric, narrative, and threat. From the notion of actually existing catastrophic scenarios emerges a political manipulation meant to disenfranchise populations by instilling a sense of urgency – without action, emergency – and therefore producing the conditions, or even the requirement, for which a path to power might not only be taken but also legitimated.[39] In other words the rhetorical strategy of catastrophe tends toward a narrative that recalls past catastrophes in order to serve as an appeal in the present, in order to protect against the possibility of the future repeating the past.[40] Vázquez-Arroyo identifies this particular narrative move, the rhetorical strategy of normalizing the present as a space for intervention. It is a

[37] Vázquez-Arroyo 2013, 739.
[38] Ibid.
[39] This argument was made first by Pat O'Malley (2003).
[40] Vázquez-Arroyo 2013, 741.

particularly salient locus for the political importance of catastrophization in the discursive sense where discourses of catastrophe "encompass the citizen as a labile participant who, however powerless, is invited to tacitly authorize those in power to respond to the catastrophic menace described, and to render the response legitimate, as part of the depoliticized politics that characterize the present."[41]

Such is the path that discourse takes in establishing narrative as central to contemporary politics of catastrophe. Invoking the costs of inaction in the face of looming catastrophe becomes a hallmark of antidemocratic, or as Vázquez-Arroyo following Wolin will call it, "depoliticized," politics.[42] Narratives of catastrophe deploy scenarios that erect parameters: either meet fate with power, or succumb to inaction. Thus the process of identifying the political rhetoric of catastrophe does not simply identify the discourse of catastrophe; it exposes the political stakes through which the politics of catastrophic discourse plays out. It is a question of actors and incentives: "For a political theory of catastrophe the central *political* question of *who* is deploying a narrative of catastrophe in the name of *what* or *whom* and *to what political end*."[43]

Vázquez-Arroyo considers this discursive process within the framework of what Adi Ophir meant by "catastrophization," a complex conceptual diagnosis of emergency politics and governance in the present.[44] In articulating catastrophization, Ophir constructs a conceptual framework with the desire to understand how "emergency" might

[41] ibid, 741-42. It is unclear from passages such as this how Vázquez-Arroyo might differentiate such claims from calls for legitimate states of exception, but I cannot pursue that here.
[42] ibid, 747.
[43] Ibid, 742. Emphasis in original.
[44] Vázquez-Arroyo 2013, 743; Ophir 2008, 59.

operate "in terms free from the discourse of sovereignty and its legal implications and in a way that still holds open a certain, limited place for the sovereign decision and exception."[45] Catastrophization, for Ophir, thus names a process in which there is an increase in the presence (and volume) of evils and a decrease in the possibility to protect against them.[46] Catastrophization, in material terms, simultaneously names the invention of vulnerable modes of political life and at the same time the mode in which life is rendered vulnerable: "The population defined by catastrophization is the medium of the catastrophization process."[47]

Drawing the term catastrophization itself from psychology, Ophir allows one way of conceiving processes of understanding catastrophe to survive mostly intact from its usage by cognitive psychologists. Indicating an anxiety disorder wherein the subject exaggerates the stakes of a personal event as "terrible, awful, and unbearable" despite their being actually "merely inconvenient or uncomfortable" introduces a subjective aspect to catastrophization.[48] The "subjective catastrophization" is thus articulated as a "cognitive bias." Rather than doomsaying in the most apocalyptic sense, the subjective

[45] Ophir 2008, 59.
[46] Ophir's use of the word "evils" is conceptual and makes reference to his treatise, *The Order of Evils* (2005). An "evil," according to Ophir is "the occurrence in which a worsening in someone's condition takes place," and can occur in one of two ways: "when he incurs loss or damage (in terms of certain exchange relations) that has no compensation; and when someone or something causes him suffering" (Ophir 2005, 327). Interestingly, in the second articulation of evil, Ophir elaborates that it can also include "occurrences that worsen someone's condition because they increase the danger that he will be harmed without directly causing damage; in this case, *the evil comes from the future damage and from the indirect loss caused as a result of the need to protect himself from the expected damage*." One might refer to this caveat as an "evil by exposure," something that will help to illuminate his case in the essay I am discussing in this chapter.
[47] Ophir 2008, 62.
[48] ibid

catastrophization is an act of mediating real events and transforming them into worst-case scenarios where their effects are so exaggerated that they bear negatively on the lived experience of the subject. In other words, subjective catastrophization describes an attitude, or a somewhat distorted orientation to the possibility of discomfort where in everyday events and relations, "one is panicked, helplessly, by the misconceived prospect of a coming avalanche of evils that one is going to suffer," though it is important to the "cognitive bias" that there be no clear imminence of evils, only a subject lamenting their potential.[49]

Ophir's contribution moves beyond cognitive psychology and suggests an "objective" catastrophization. Noting that there often are very real catastrophes, and that one needn't be cognitively biased to fear them, objective catastrophization designates "a process in which natural and man-made forces and factors work together to create devastating effects on a large population."[50] This objective form of catastrophization occurs through "the processes that bring about that very avalanche of evils [suffering and losses, humiliation and scarcity, deprivation and neglect] that injure entire populations."[51] In other words, objective catastrophization indicates the processes through which catastrophes (always "man-made") are created and exacerbated. Objective catastrophization, for Ophir, enables an understanding of large-scale processes by which harm is exacted and endured, and it is carried out first and foremost through the

[49] ibid, 60.
[50] ibid
[51] ibid, 60.

production of populations of subjects, through a complex articulated by governmentality.[52]

For Ophir, evoking governmentality allows for the subjective process associated with individuating terror to be supplanted by a broader, discursive paradigm that names a vulnerable population at the same time as it comes into existence.[53] In other words, where the concept of catastrophization derived from cognitive psychology articulated a false dichotomy—the subject who exaggerates reality and the objective terms of reality—the form of catastrophization rooted in governmentality seizes on the distinction between "actual or objective" catastrophization as both a means of governance and event, on one hand, and the intellectual production of catastrophization, viz. the *discursive* mode of catastrophization.[54] Here, rather than the notion of event and protectorate (objective catastrophization), the parallel function classifies what matters, distinguishing "natural" from "manmade" events, or as "catastrophe" or "humanitarian emergency."[55] The discursive mode of catastrophization "designate[s] objects to be observed, described, measured and analyzed, predicted, and interfered with by and through a certain discourse, and they all result from applying certain rules of 'object formation' in that discourse. These are the discursive means through which the catastrophizing process assumes its objective status."[56]

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[52] Ibid 62.
[53] Ibid, 63.
[54] Ibid, 62-3.
[55] ibid
[56] ibid.

Adi Ophir rendered the complex concept of "catastrophization" whilst considering the ongoing tumult taking place in the Occupied Territories of Palestine.[57] For Ophir, this concept both outlines the ways that a vast interaction between state governance and NGOs continues to tacitly sanction the push of the Palestinians to the brink of disaster and simultaneously to rescue them from perishing. The active component of the concept explains the transformation of daily life into one of ongoing catastrophe – "discursive catastrophization may go in two opposite directions and may do so simultaneously: creating a catastrophe and mitigating its effects."[58] Yet the concept reaches further in an attempt to describe the advent of a governmentality that gives the ongoing catastrophe life, as Vázquez-Arroyo puts it, both "an *objective* reality and a *discursive* process" (though Vázquez-Arroyo makes no mention of the prominence of governmentality in Ophir's argument).[59] In other words, Ophir's concept of catastrophization produces an understanding where in actual policy the catastrophe is both produced and mitigated; but in this process, so are ways of thinking about political order in the very political landscape that it produces.

Sympathetically critiquing Ophir's deployment, Vázquez-Arroyo introduces the notion of the "catastrophization of political life" as a means to recast Ophir's notion of catastrophization that allows for the "cognitive bias" of subjective catastrophization that I discussed above – the disordered condition of exaggerated anxiety – to bear the role of effect in the dialectic between catastrophe as event and catastrophization as process. (I wonder if Vázquez-Arroyo's attempt to conceptualize the conditions that he calls the

[57] ibid, 77.
[58] Ibid, 67.
[59] Vázquez-Arroyo 2013, 744

catastrophization of political life isn't asserted in the place where Ophir's treatment of governmentality already exists. Where Vázquez-Arroyo indicates that the catastrophization of political life bears impacts upon shaping the experiences of political subjects, Ophir, albeit quickly, seems to indicate that certain populations are produces similarly through logics of governmentality, a passage that Vázquez-Arroyo does not interpret, but seems important to however Vázquez-Arroyo's catastrophized populations must come to be.) Where Ophir clearly has a concept for the relationship between discursive catastrophization and the production of populations with respect to it, Vázquez-Arroyo instead writes in a similar direction under a different name.

It is worth parsing the dual elements that Vázquez-Arroyo has in mind in developing this concept of the catastrophization of political life. I will return to the first momentarily, but in line with how I have outlined his argument thus far, the rhetoric of catastrophe and the ways that it tends to depoliticize populations plays a central role in Vázquez-Arroyo's conceptualization of the catastrophization of political life:

> …the rhetoric of catastrophe, its menacing shadows, is deployed to depoliticize populations, as well as to legitimize catastrophic situations that are already under way. This, in order to establish a threshold in which state power is not only exercised but regularized, and normalized, in fundamentally undemocratic ways.[60]

Here we see a refrain of sorts wherein Vázquez-Arroyo reminds the reader that the invocation of catastrophe serves to bolster the authority of those that deploy the rhetoric, therein legitimating a political arrangement where the present itself requires rescue. In this sense the legitimation of catastrophic situations refers to the objective catastrophization, the actual reality of the moment. Discursive catastrophization, in

[60] ibid, 745.

Vázquez-Arroyo's reading of Ophir, as a political effect, becomes a vehicle by which the catastrophization of political life occurs when it intersects with objective catastrophization.[61] Accordingly, this passage that I have quoted, the "rhetoric of catastrophe" carries with it an air of intentionality where the rhetoric's deployment permits the undemocratic exercise of state power.

This is certainly empirically the case, often enough, but by his own admission Vázquez-Arroyo abandons another process in which catastrophe enters the fray: the way that the discourse of catastrophe

> …connotes an increasing awareness of vulnerability to forms of power, the pervasiveness of superfluous suffering and destruction, and the need to be politically alert to these, in order to mitigate or avert catastrophes…"[62]

It is interesting that Vázquez-Arroyo does not dwell more on this formulation of the catastrophization of political life because it would seem to almost politicize the recipients of the rhetoric of catastrophe. There is a way that focusing on this element wherein those who are exposed to discursive catastrophization might become conditioned or aware of its very process in the sense that they might be "increasingly aware" of their vulnerability (or not). But Vázquez-Arroyo only states this part of his formulation, a part that to my mind would come closer to appropriately describing the more general sense of "political life," a sense that would be inclusive of entire populations—even only as audiences of those who deliver catastrophic rhetoric—but still, the point remains that the themes in the passage quoted just above—"increasing awareness of vulnerability to forms of power," "the superfluous suffering and destruction," "and the need to be politically alert to

[61] Ibid, 744-45.
[62] Ibid, 745.

those"—these themes seem to me to be *extremely* political. Yet Vázquez-Arroyo proceeds, having only named such themes, to the "menacing shadows" or the rhetoric of catastrophe before naming its "fundamentally antidemocratic ways."[63]

The larger issue that I find with this formulation is how heavily it relies on explicit rhetorical strategies. I do not dispute the presence of political manipulation, especially as an if-then proposition, that Vázquez-Arroyo refers to as he makes his arguments concerning the uses and abuses of rhetoric to depoliticize populations.[64] Yet it is symptomatic of the larger structure of Vázquez-Arroyo's argument that the emphasis in his conceptual description of the catastrophization of political life tends toward the notions of the rhetoric of catastrophe being deployed to "depoliticize populations."[65] That the strategy of invoking catastrophe aims to depoliticize "in order to establish a threshold in which state power is not only exercised but regularized, and normalized, in fundamentally antidemocratic ways," reveals the agential animus of Vázquez-Arroyo's conceptualization.[66] The catastrophization of political life is a political manipulation, a

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[63] Ibid, 745.

[64] See for example how his essay sets up its argument with example's of "Barack Obama's invocation of [catastrophe] in 2009, when he stated that without swift intervention the ongoing financial crisis 'could turn into catastrophe.'" Or, more centrally to the ongoing arguments of the essay, how Habermas sought to avert one catastrophe while advocating a less visible, yet persistent one in Europe. Vázquez-Arroyo 2013, 739.

[65] Ibid, 745.

[66] Take, for example, how he frames another important essay on the politics of catastrophic rhetoric with reference to the state: "Herein lays the recasting of the element of answerability in the formulation this essay sets forth: from the perspective of a democratic identity, answerability cannot be reduced to answering to the State, and its surrogate logics of power, which betrays basic democratic principles of participation, equality, shared power and accountability; it is rather conceived as response that answers to the need to avoid compromising these democratic principles; that is its moment of fidelity. Answerability is thus recast as the need to 'respond to' rather than as an 'answering for' a predicament of power. Emphasis is thereby placed on the responses demanded by virtue of inhabiting, as a

seizure of power, a pillaging of the vulnerable – even when they are perhaps not as vulnerable as the rhetorician might have them be represented. The rhetoric of such a catastrophization seeks to disenfranchise and disable and, in the end, has less to do with catastrophe than with hoodwinking and sleight of hand.

In arguing that the process of catastrophization of political life that he insists upon is effectively a device intended to "authorize the expansion of unaccountable power" with a form of rhetoric "deployed to depoliticize populations," he mistakes the exercise of authority-as-politics for what he refers to as "political life." In so doing, Vázquez-Arroyo only addresses the way that certain rhetorics bolster the abuse of antidemocratic power. But when seen as a broader concern—a preoccupation with the future-oriented abstraction of catastrophe—we can see to the contrary that a discourse of catastrophe works in ways far from depoliticizing populations. Instead we can see a re-politicization—a re-orientation—of political life to a broad concern about security *in general*.

The limited notion of the "catastrophization of political life," as Vázquez-Arroyo outlines it, is extremely useful for understanding the ways that political actors might deploy nightmare scenarios in order to effect political change, be it by declaration of emergency, or even to reach consensus. Yet the notion of the catastrophization of political life is less useful if we want to understand a broad cultural production of thinking about catastrophe. While Vázquez-Arroyo's thesis significantly advances our

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full participant, a scene of power, the locus where one's responsibility resides. A sense of responsibility bound by a sense of fidelity to one's political identity, but also by one's position in the structure of power relations in this scene, as well as the benefits that one derives from it, sometimes just by virtue of being a recognized member of the collectivity" (Vázquez-Arroyo 2008, 99.)

position in terms of building a critical literature on the politics of catastrophe, I want to suggest that an important supplement can be asserted in order to move the effort further. For Vázquez-Arroyo, following Wolin and others, the process by which catastrophization operates discursively necessarily empowers some while disenfranchising others. For him the process articulates a certain kind of political life: one in which rhetorical strategies of danger and vulnerability consolidate and "authorize specific forms of power."[67] Yet there clearly exists a multiplicity of discourses surrounding the presence of catastrophe that do not necessarily *only* seek to authorize "unaccountable power" with a form of rhetoric "deployed to depoliticize populations."[68]

I agree that discourses of catastrophe enact specific forms of power. Yet the concept of discursive catastrophization, and the way that Vázquez-Arroyo extends it to shape political life, obscures the very widespread process of fictionalizing; in other words, discourses of imagination. This is no small omission. Vázquez-Arroyo concentrates on the hierarchical abuses surrounding the politics and rhetorics of fear. As a result his notion of the "catastrophization of political life," explains the process by which people are disenfranchised by narrow manipulations of rhetoric by those who already wield political power. Instead, however, when seen as a broader concern—as in a cultural preoccupation with the future-oriented abstraction of catastrophe—we can see to the contrary that a discourse of catastrophe works in ways far from depoliticizing populations. Even further, we can see catastrophic discourse emerge from a broad swath of populations, many sectors of which are not traditionally conceived as holding positions

[67] Vázquez-Arroyo 2013, 739.
[68] Ibid, 745

of political power. In this sense, we need to develop a theory explaining that we exist in a moment of broad cultural production about catastrophe and the way that it shapes our lives. To underestimate the importance of this cultural production is to overlook, explicitly, how potentially politicizing catastrophic discourse can be. To that end, it is clear that the cultural production of fictionalizing—of inventing catastrophic scenarios—is the effect of a wider ranging political rationality that, after offering some examples, I will refer to as catastrophism.

III. Four Fictions of Human Security

Here, below, recalling Foucault's dispositif, the brief passages through four narratives (from literature, philosophical ethics, public appeals to security policy, and the Department of Homeland Security) operate as varied voices in such a "heterogenous ensemble" where writings from different corners of concern for future catastrophes and likewise future threats to human survival come to life, not as orthogonal to one another, but nevertheless as unique expressions germane to the same rationality, the same field of inquiry. Again, by rationality, I do not mean a repressive regime of control, but instead a process (and its effects of meaning-making) in which even in their differences, I hope to show a shared logic of reasoning.

The concern for future catastrophe lurks in many kinds of contemporary thought about political life in the present, even if and when they justify themselves by way of fictionalizing the future. I try to relate those writings by way of their own elements that connect them with others, that make them belong with others. I outline them to show how

we can begin to see connective tissues between fairly dissimilar sorts of thinking as a way of understanding that something unifies what seems at first blush nearly unrelated. In reading different texts below, I emphasize more than an arbitrary association. I underscore the presence of a sense-making capacity reaching further than the preoccupations of security analysts and doomsayers alike. From these vignettes, in the next section I outline the organization of a political rationality called *catastrophism*: a rationality orienting the subject, or even entire populations of subjects, toward political life by way of their connection to a way of thinking—in this case, both animated and petrified by the necessity to account for future circumstance, to imagine future catastrophes.

Together these writings represent rehearsals of catastrophism. They produce fictions, claimed as necessary visions of what could come, not what has or what will. And subsequently they deploy the catastrophic in order to engage the present. So if in fiction is their power, I attempt as a response to read them.

a. *Literary Allegory and Catastrophe as Humanist Warning Sign:* Oryx and Crake

The narrative present of Margaret Atwood's novel *Oryx and Crake* unfolds mostly on a barren beach. Scattered with refuse from a lone human's endeavor to survive, the long stretch of sand is all but unoccupied save one biological human being, presumed to be the last living human being after an engineered apocalyptic virus that was intended to destroy all but its creator and his lover.[69] The only other living creatures are a small tribe of genetically modified permanent children, bewildered by a genetically modified lack of

[69] Atwood 2003

capacity for fear, who exist in a constant utopia of earnest ignorance, and a litter of new animal forms that resulted from corporate science experiments aimed at manufacturing more-perfect animals than natural selection could deliver. The setting from which the novel's protagonist and sole known human character to have survived a species-ending virus,[70] dualistically named both Jimmy and "Snowman," makes a literary play on the desert, the ocean: The beach is simultaneously bleak and serene, at once tranquil and dangerous.[71] The white sand stretches out endlessly and Snowman confuses the experience of survival on the beach with being "alone on a wide, wide sea."[72] By feat of coincidence and lustful obsession, Snowman survived in a babbling, nostalgic accident, and the novel consists in its near entirety in his reflections on the causes of his predicament as presumably the Earth's last living human being. Snowman, delirious as he is, desensitized from the absence of human contact, context-less in a rolling present form of immanent temporality—"zero hour"[73]—persists emaciated and riddled with insect bites, without interlocutor save a small crowd of genetically modified childlike beings, reminiscent of H.G. Wells's Eloi, called the Children of Crake, who are dreamily

[70] This is an assumption that the reader is forced to make through the course of the novel, though in the very final pages, we learn that there may be other humans even on the beach itself, though there is no certain way to determine at this point what parts of the narrative are "real" and what are hallucinations of Snowman's imagination (372). Aradau and Van Munster, in passing, evoke a similar trope in referencing MacCarthy's *The Road* when opening their book: "The cause of the event often remains unknown and unknowable –as in Cormack MacCarthy's novel *The Road* – and the narrative instead enacts a future that invites audiences to inhabit a world where the catastrophic event has already happened" (Aradau and Van Munster 2011, 2). As a mechanism of dystopian literature, the casual mystery is as powerful as it is regular: the question, "How would we have arrived at such a future?" encapsulates the desire to allegorize the mistakes of the present, often appearing in dystopian landscapes, but also central to satirical treatments as well.

[71] Relating the sea and desert in literary imaginaries, see Casarino (2002) and Jasper (2004)

[72] op cit, 10.

[73] Ibid 3.

animated at best, and blearily ignorant to what has been lost, amounting in their banality to the logical conclusion of all of human achievement and civilization as the reader knows it.[74] The Children of Crake were meant to be Earth's sole conscious inheritors of the planet and its new humanless wild, save their originator—the narcissistic scientist Crake—who, as the novel continues, takes shape as not only the narrative antagonist, but also an allegorical representative of the consequences resulting from the nexus of myths of scientific progress and unfettered capitalist ambition – as Posner describes him, "a perfectly credible twenty-first century psychopath… One knows men like Crake."[75] Crake is an unbound Narcissus of modern scientific progress. But his character has a particular relationship to genius and scientific knowledge not best described simply by fiat of psychosis. As Chung-Hao Ku argues, Crake is not merely "mad" in the sense that his character represents mental illness. Crake instead expresses a historical conjunction between capital and *techne*: "Although Crake looks like a cynical misanthrope who would fain rid himself of humankind, he is less a 'mad scientist' than a product of

[74] I return to the Children of Crake momentarily. The reference to Wells's Eloi is from *The Time Machine* by H. G. Wells (2008). There is a strange inversion of Wells's allegory of class conflict in *The Time Machine* where there is an eternal class struggle, even in the seeming (on the surface) utopia of the far-off future. In Atwood, the quest for human progress results immediately in bloodlust and the eventual catastrophe in the human present of modernity. So the Children of Crake really ought be contrasted with the Eloi, in that sense only, because the Children of Crake represent the utopian dream of Enlightenment rationalities of scientific progress, but not the reality. Wells's novel cannot share that trajectory because the narrative spells the teleological arch extending to utopia for some, and the eternal plunge into misery for the underclasses. Atwood shares no such optimism, if such a word might be applied to Wells, because her ruminations on the future of the human species involves a total cataclysm of global proportions rather than an amplified perpetuation of class dynamics as modern thought understands them. Posner (2003) makes a similar argument, but also links *Oryx & Crake* to a longer list of dystopian works by authors including Huxley, Orwell and others.

[75] Posner 2003, 34.

capitalist machinery. After all, Crake cannot destroy the world without the conspiracy between technocracy and capitalism."[76] As such, rather than merely representative of a maniacal modern antagonist, Ku and others argue that Crake represents an ethical dilemma signifying both the capitalist imperative to profit, as well as the technocratic solution to manage through invention.[77]

This is Atwood's dream of the post-catastrophic landscape: dislocated and aimless, a present beyond *telos*.[78] It is a world at once terrible and serene, and it is a landscape without focus, sadly occupied by the world's last person.[79] Atwood's meditation on the post-catastrophic is less a meditation on a solemn world as it is a rumination on masculine narcissism and instrumental rationality. I will return to discuss the centrality of the novel's mythic critique of instrumental progress and unfettered scientific ambition, but what underlies Atwood's narrative is a lamentation of cost, of what is at risk in the delicate balance between scientific achievement and the potential for narcissism to turn sinister.

In the wilderness of Snowman's present life, he is left to reflect on the production of modernity itself represented in ruminations of love lost and the end of a civilization bent on its own perfection through endlessly coextensive scientific experimentation and commodity production. Snowman bore witness to the ceaseless attempt to commodify the production of a biopolitical utopia.[80] The ultimate outcome of the quest to perfect a

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[76] Ku 2006, 119.
[77] Ku 2006, 120; Sanderson 2013, 235; Snyder 2011, 474.
[78] Snyder 2011, 471.
[79] Ingersoll (2004) likens Snowman to Robinson Crusoe as a trope of isolated survival, pg. 163. Posner performs a similar gesture (2003, 31).
[80] See Haines 2012.

biopolitical species alteration as commodity is Snowman's solitude and status as terminal human being, which the reader is expected to lament the end of humanity as it is utterly forgotten with its accompanied death of narration.[81] (What a strange and uncritical view of oral tradition, but I cannot pursue that now.) If the ultimate outcome is Snowman's lonesome death, partnered with the end of humankind, then the penultimate outcome is the catastrophe producing the end of civilization itself.

As the novel operates as a mysterious work of discovery, where the protagonist's nostalgic quests of memory narrate the genesis of the disaster, the reader only discovers the source of the catastrophe at nearly the novel's end. Finding a note that he penned with certainty of his own looming death, Snowman addresses his helplessly authored a letter to potential survivors that might one day stumble upon his corpse and with it the only attempt to explain the ostensible death of humanity. To Snowman, the letter uttered the final thought of human history:

> I don't have much time, but will try to set down what I believe to be the explanation for the recent ~~extraordinary events~~ catastrophe. I have gone through the computer of the man known here as Crake. He left it turned on—deliberately, I believe—and I am able to report that the JUVE virus was made here in the Paradice dome by splicers hand-selected by Crake ~~and subsequently eliminated~~, and was then encysted in the BlyssPluss product. There was a time-lapse factor built in to allow for wide distributions: the first batch of virus did not become active until all selected territories had been seeded, and the outbreak thus took the form of a series of rapidly overlapping waves. For the success of the plan, time was of the essence. Social disruption was maximized, and development of a

[81] Cooke (2006) summarizes this well: "We are presented throughout the novel with the possibility of the end of the human, and we have this ending systematically worked out through the disappearance or diminution of language, the destruction of the technological system, as well as the liquidation of most of the world's inhabitants. Through the entire book, we live with this palpable sense of the end." The end of narration, and its parallel in a narrated disintegration of language, come to signify the end of the human capacity to relay information, to tell stories, and as a result the novel carries forth in a symbolic dissolution of the novel as form in and of itself.

> vaccine effectively prevented. Crake himself had developed a vaccine concurrently with the virus, but he had destroyed it prior to his ~~assisted suicide~~ death. Although various staff members of the BlyssPluss project contributed to JUVE on a piecework basis, it is my belief that none, with the exception of Crake, was cognizant of what that effect would be. As for Crake's motives, I can only speculate. Perhaps…[82]

Crake's designed catastrophe grew from his monomaniacal drive to innovate, as such emphasizing the collusion between rote creation and capitalist drive. Crake's insatiable experimentation with life becomes vilified by Atwood's narrator because of Crake's megalomania and the ways that it leads to the worst imaginable scenario, but what is not explored as a critical possibility by Atwood is that Crake's genetic splicing and species altering was also a swerve in biological reality that essentially would result in the end of humanity anyway.

What becomes clear is that the scientific pursuit—though somewhat liberally narrated by Atwood as the sole province of the antagonist Crake—tended teleologically toward the catastrophe as if the release of the apocalyptic virus were a logical conclusion of scientific advancement. Yet this overlooks that it was not merely "scientific experimentation," but the pursuit to augment life through commodified forms of biological enhancement that created the conditions of possibility for the virus's dissemination. Crake is not simply determined to invent, but to alter – by way of destroying – the fault lines of biological humanism.[83] At the very core of the novel's

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[82] Op cit, 346.

[83] Bergthaller recognizes this as a feature of Crake's character fundamentally opposed to an artistic humanism that he recognizes in Snowman. For Bergthaller, Crake is no mere capitalist but, instead, a ruthless inventor *against* the biological determinism of the human itself: "…it is quite clear that Crake, underneath his veneer of cynical aloofness, nourishes a deep disgust of the world he grows up in, and that he is motivated not by greed but by a genuine desire to change it. His Paradice project is not a money-making enterprise, but an

explanatory device lives a commodified biopolitical utopianism, one met only with a moralistic dystopianism:

> It was amazing—said Crake—what once-unimaginable things had been accomplished by the team here. What had been altered was nothing less than the ancient primate brain. Gone were its destructive features, the features responsible for the world's current illnesses. For instance, racism—or, as they referred to it in Paradice, pseudospeciation—had been eliminated in the model group, merely by switching the bonding mechanism: the Paradice people simply did not register skin color. Hierarchy could not exist among them, because they lacked the neural complexes that would have created it. Since they were neither hunters nor agriculturalists hungry for land, there was no territoriality: the king-of-the-castle hard-wiring that had plagued humanity had, in them, been unwired. They ate nothing but leaves and grass and roots and a berry or two; thus their foods were plentiful and always available. Their sexuality was not a constant torment to them, not a cloud of turbulent hormones: they came into heat at regular intervals, as did most mammals other than man. In fact, as there would never be anything for these people to inherit, there would be no family trees, no marriages, and no divorces. They were perfectly adjusted to their habitat, so they would never have to create houses or tools or weapons, or, for that matter, clothing. They would have no need to invent any harmful symbolisms, such as kingdoms, icons, gods, or money. Best of all, they recycled their own excrement. By means of a brilliant [genetic] splice…[84]

One strange outgrowth of this dialogue between Crake and Snowman is that the catastrophe stems from the very same technological advancements that Crake references above. In a way this move denaturalizes the biological virus (which isn't incorrect at all; it is borne of a laboratory after all).[85] Thus the catastrophe responsible for the end of human life as we know it was a material byproduct of the very pursuits of modern science to master nature.[86] The virus is anything but natural; it is fully, wholly political.

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attempt to cut the Gordian knot that is human nature, to complete the transfiguration of life which art also aims at" (Bergthaller 2010, 735).

[84] Ibid, 305

[85] On the effects of denaturalization, see Huffer 2015.

[86] Paik pursues a similar vein that could further tie such a reading to my conceptualization of catastrophism: "…such a fantasy can be shared by perspectives that are normally held to be diametrically opposed, such as by transhumanists, who call for the augmentation of human

Yet when read more closely, Atwood's narrator carries out a strange maneuver. By reducing the solutions to political problems lurking within humankind, Atwood simultaneously depoliticizes political force by way of reinscribing political problematics (racism, hierarchy, territoriality, scarcity, desire) to the biological impulses of human beings (and not "nature" in a broader scope). The narrative can thus only conclude that political divisiveness and partisanship results from biological constructs—from a human ecology—leaving as political possibilities genetic determinism in the form of eugenic commoditization or catastrophe. Atwood is thus confronted with a strange problem: Through biologizing politics (and its potential solutions), the narrative can only conclude that in alleviating political problems, the modern aim of scientific progress understood as human self-determination leads either to eugenics or to catastrophe.

Nevertheless *Oryx and Crake* carries out a cautionary tale that forewarns its readers of the dangers of unbridled ideological commitments to scientific progress in an age of capitalist modernity.[87] The novel, thus read, might oversimplify richer philosophical works on the matter, but it serves importantly—perhaps more importantly than other thematic endeavors that the novel undertakes—to allegorize the problems associated with the myth of modern progress as advanced ideologically by proponents of modern science.[88] DiMarco aptly names Crake an allegorical figure of "modernity's commitment to *homo faber*—he who labors to use every instrument as a means to achieve a particular end in building a world, even when the fabrication of that world

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beings through biotechnology, and by the antihuman segment of environmentalists, who regard the human species as a plague that is devastating the earth" (2010, 120).

[87] Cooke 2010.

[88] Cooke alludes to these themes in reading Atwood's implicit sympathies with the Frankfurt School (2010).

necessarily demands a repeated violation of its materiality, including its people."[89] Atwood's novel warns of hidden consequences in discovery and innovation, that human malice and avarice can as easily be deployed as some Panglossian ethos of advancement and progress, as is often the narrative accompanying the goals of scientific quests to heal, to cure, and to engineer scientific escape routes to otherwise human-made calamities like global poverty and climate change. The upshot serves to remind that Atwood has a relatively simple moral: Science can as quickly destroy humanity as it can save it. To follow science uncritically is to potentially bring about the end of all human life in a catastrophic end, resulting from something as simple as unbridled ambition.

b. *Critical Philosophy as Anti-catastrophic Pedagogy:* Ethics for a Broken World

Of the possible interpretations of Tim Mulgan's *Ethics for a Broken World*,[90] one that is most tempting but also most off-mark is that it is a book about the future. It is not. Rather than writing a book for the future as perhaps Nietzsche had in many of his works, and despite a gesture toward "future generations" as a central provocation, Mulgan has written a critique of the present, or at very least of dominant ethical and political philosophies of the modern age.[91] Advancing as a hypothetical set of lectures from a history of philosophy course set in the near future, where the contemporary age might follow "Early Modern Philosophy" (or anyway where the present time period is understood truly as such), Mulgan's fictional philosophy professor is tasked with

[89] DiMarco 2005, 170.
[90] Mulgan 2011
[91] Principal among these are *Thus Spake Zarathustra* (1968) and *Beyond Good and Evil* (1989), which carries the subtitle, *Prelude to a Philosophy of the Future*. See also Hicks and Rosenberg 2003; Metzger 2013.

teaching the philosophy of a bygone era—really, a constitutive era of a catastrophic future—in which the present moment taking place 50 to 100 years from the reader's present is post-catastrophic; the future, we learn, is the "broken world."[92] Placed in his own words: "The idea that we hold the resources of the earth in trust for future generations was a very powerful one for many affluent people. They could have applied it to their collective decision-making. Unfortunately for us, and for the future of our world, they did not."[93] In short, Mulgan's broken world emerges from a failed ethics, an ethics of insurmountably political implications resulting in an earth devoid of expectable continuity, borne from a blindness to material outcomes resulting from material desires – it is a paradox of contemporary "affluent" thought.

In the broken world, a post-environmental collapse of global proportion, Mulgan theorizes a new scarcity in which the resources needed to sustain human life lack to the extent that survival for all human beings is not even unlikely, it is largely unthinkable. Juxtaposed to the reality that future generations of the broken world intuit, the reader's present world is articulated as the "age of affluence."[94] This affluent age is experienced by the moderns and justified philosophically by their signal thinkers (namely, for Mulgan: Nozick, Locke, Mill, and Rawls), and who when unified in historical memory operated under the theses of individual property ownership that advanced a civilization whose most perilous blind spot was that it valued its own self-fulfillment over and

[92] Mulgan titles the course "Ancient Philosophy III: American and European philosophy in the age of affluence." Mulgan 2011, 1. For a more precise summary see, Mulgan 2014a, 4.
[93] Mulgan 2011, 220.
[94] Mulgan 2011, 2-5.

beyond a rational (and ethical) responsibility for future lives (even of their own selves and offspring).[95]

The motivating comparative work undertaken by conceptualizing the age of affluence renders contemporaneous ethical considerations contingent upon its own circumstances. Mulgan's imagined dystopia reimagines the causal force of affluence in the present as shaping the very ways that ethical choices are made. As an effect, his critique challenges the outcomes of ethics as emerging from non-necessary circumstances. For Mulgan the aim of his book is to denature the notion that human relationships with a more or less equilibrious environment are not ontologically given and upon which a static system of ethics and politics can rest. Rather a vision of ethics and politics constituent with existential uncertainty would require asserting the former's contingent relationship with ontological conditions of survival. As Chappell puts it, "[The affluent-contemporary] perspective is, historically speaking, a most unusual perspective. What reason is there to expect it not to be also a *warping* perspective? What might moral and political philosophy look like, if we tried to get free of the distortions of that perspective? If we tried, say, to adopt the perspective of a broken world's inhabitants

[95] One would be right in mounting a normative critique against Mulgan's primary characterization of the "age of affluence," noting that the present era is not uniformly affluent, or at least affluence is hardly the defining characteristic representing most human lives in the contemporary age. Leaving the particularities of that argument to the side, such a critique would need to contend with the difference between an ontological and ecological continuity that Mulgan recognizes in the present-affluent age that *makes possible* a surfeit of materialistic components of so-called affluence, and his imagined consequence of collapse that would render *impossible* the ontological equilibrium to so much as carry out agriculture or construct permanent settlements. This is truly what Mulgan has in mind when he cites as his more important provocation "to highlight the *contingency* of our moral and political ideals," and why the book is not principally an argument concerning, for example, why climate change ought to be considered more seriously (ix).

instead, and think about how moral assumptions that seemed entirely naturally to us might strike them?"[96] This alteration in worldview commits itself firmly as a link between the ethical hope to alter the sense in which human behavior can be constrained by moral consideration, and as a result it rethinks the sense in which moral considerations are contingent upon contemporary states of affairs.[97] If, as Mulgan imagines it, moral considerations are capable of altering world-modifying behavior, action must be realigned with reasons to change. The speculative nature of his book is therefore not only ethical, but an imaginative exercise within the project of pedogogy.

As a result the responsibility summoned for future generations is not mere teleologizing in the sense that the narrative deployed means to insist that the broken world is inevitable (in this sense it is only dystopic in the most remote sense as well) – what matters for ethical purposes is that Mulgan's vision is *credible*.[98] For Mulgan the welfare of others as ethical consideration ought not merely extend to those in the synchronic sense of moral outcomes mattering in the present.[99] When considering the lived experiences of others, especially those unlike ourselves, the ethical responsibility to future people ought be considered with equal footing, if not taken more seriously, as ethical considerations of those whose lives share a temporal register. This is because, as Mulgan puts it elsewhere:

> Unless something goes drastically wrong in the next few centuries, most of those who will ever live are yet to be born. Our actions have little impact on those who

[96] Chappell 2014, 31-2.
[97] Mulgan 2011, ix.
[98] Mulgan 2014c, 60.
[99] This part of his argument builds on his influential book, a consequentialist treatise weighing in on the debate about "future generations." See, *Future People* (2006). For critical readings of the debate on future generations, see Barry 1978 and Narveson 1978.

> are dead, considerable impact on those currently alive, and potentially enormous impact on those who will live in the future. Perhaps the most significant impact is that our decisions affect who those future people will be, and even if there will be any future people at all. If we measure the moral significance of an action by the number of people it affects and the impact is [*sic*.] has on them, then our obligations to future generations deserve to be the central topic of moral philosophy.[100]

This moderately consequentialist view implores a revision of moral philosophy focused solely on ethical dilemmas aiming to abjure infractions against those who might feel the results of such infractions most directly. Instead Mulgan urges that a long view is not only pragmatic, but ethically paramount. If we have ethical responsibilities, in other words, a sound judgment from which to begin must involve the pure ethical mathematics that those who might inherit the world will be forced to cope most vitally with the decisions of the present human beings than anyone else, if future generations end up existing at all.

Thus in the broken world its denizens are angry with us contemporary moderns. We who seem to them as endlessly endowed with affluence of both monetary wealth and natural resources are not blameworthy solely because of our collective failure to sustain the complicated ecological balances of an earthly climate. That was not our failure, but rote environmental destruction for the accumulation of profits was.[101] The well-known

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[100] Mulgan 2006, 1.

[101] That the capitalist profit motive is endemic, but less explicit to Mulgan's critique leaves him in a situation where his moral-political criticism observes the right to private property as a central motif of his argument. As a result Mulgan's argument is less capable of observing broader structural causes of what might bring about the broken world than what a liberal system is capable of outlining. One consequence of this focus on individualism might encourage his future-oriented experiment. As Berkey notes, there are observable "*widespread and familiar* types of suffering and deprivation" already affecting existing populations that do not require the futurism of climate change-induced instability of future scenarios. What Berkey calls "Dire Global Poverty" demands a sensible alternative to inspire a revised ethics

critical saturation of carbon particles in the atmosphere subsequent of not only wild spirals of industrial production and pollution, but also by the narcissistic consumption on an individual level resulting from individualist ontologies of liberal political thought and constitution,[102] irrevocably destroyed climate stability for, if not all future human generations, then at least the ones of the immediate future that is the subject of Mulgan's experimental book. The resulting broken world, one which would be incapable of equilibrium, casts a complicated existential crisis upon this new generation, one in which not even seasons can be predicted, let alone rain levels or hours of sunshine.[103] While some measures of predictive strategy might become possible—including some basic agricultural techniques, climate prediction, and fuel efficiency—clear access to potable water and fertile ground are scarce or remote or worse. Yet, the most alarming difference between a present liberal society and the future societies of the broken world consist in the necessity of killing off some healthy citizens in fear of not being able to feed them in times to come.[104]

Of this future possibility that places human survival into an abject lottery, completely given to chance, Mulgan imagines a hypothetical time traveler from the present affluent age and what she might find. "Instead of apocalyptic chaos," Mulgan's philosopher in the future writes, "our traveller would thus find functioning societies carving out a living in an unstable, hostile world."[105] Clawing against the quickly shifting

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that Mulgan's experimental book is less capable of addressing in what it intuits. See Berkey 2014, esp. 175-77.
[102] Mulgan 2011, 7.
[103] Ibid 9.
[104] Ibid 9-10
[105] Ibid, 10.

conditions of survival, Mulgan imagines the future civilization in a broken world still bent toward organizing collective life for, at very least, the betterment of the experience of such a terrible struggle to persist. Future people would suffer most directly from actual scarcity of resources, not the proposed dearth of resources stabilizing liberal economics, where in the limited means of subsistence would cause a direct problem reminiscent of Malthusian fantasies represented in the dystopian imaginary of *Soylent Green*.

The principal problem of these humans struggling to survive would consist of "bottlenecking," in which there exist too many bodies and mouths to feed, and so to imagine a fair mechanism of distributing resources is to misunderstand both the possible courses of action and the bare mathematics of it all. In other words, "survival bottlenecks are an ongoing fact of life" for the denizens of a broken world.[106] Hoisted upon them would be the unfortunate circumstance of revising ethical and political questions of the affluent age to meet the new contingencies of the broken age. Questions adequate to the broken world would require reflection on the necessity to allow some to live and others to die, dramatically revising theses prioritizing or even sanctifying individual lives for the sake of survival of political society itself. Thus the people of the broken world:

> …often find ourselves in a place where we cannot all survive. The central questions of our political philosophy are: how do we preserve society through those bottlenecks; and what do justice and ethics require in such extreme circumstances? These are the questions that our philosophers struggle with today. In practice, every society in our world institutes some "survival lottery." For instance, many societies distribute food partly on the basis of age or health, so that people are not kept alive once they can no longer make a productive contribution, or when they have little chance of survival even if they are fed.
> These lotteries, and their accompanying systems of entitlement, sanctions and rewards, are so central to our social life that we can barely imagine their absence. By contrast, our affluent visitor would initially regard any survival lottery as both

[106] Ibid.

> morally repellent and absurdly impractical. A survival lottery is a bureaucratic procedure that determines who lives and who dies.[107]

The existential condition of the broken world is thus not only wickedly unpredictable, it is also one where individual life is no longer sustainable by its own ontological virtue. The presumed solution of survival lotteries presents a solution for the population placed in importance well before the presumed rights of the individual and emerges as a political coping mechanism derived from an entirely different ethical standard than one found in the tradition of liberal political ontologies.[108] Such philosophical positions that Mulgan deems particularly demonstrative of the modern capitalist liberal democratic mode of

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[107] ibid 10-11.

[108] Arvan argues that, from a Rawlsian position (which Mulgan critiques as contributing to the affluent society's vision of justice), that the very experiment of the survival lottery is untenable. "Any person who agrees to a randomizing principle might rethink, revise, and want to pursue new life goals that are inconsistent with the randomizing principle's results. We saw this clearly above. It is irrational for the parties to a broken original position to agree to a survival lottery—any survival lottery—for the simple reason that they might not want to accept its results if they turn out to be on the losing end. Given their higher-order interests, it is rational for the parties to seek a better, non-randomizing option, an option that enables people to pursue, rethink, and revise, whatever goals they might have, including any anti-survival-lottery goals they might have" (Arvan 2014, 106). From this perspective the survival lottery fails a test of feasibility because it is unlikely that in a society of self-interested persons that such a lottery would be implementable. For Arvan, Mulgan simply overlooks the notion in Rawls a theory of just society relies fundamentally on the rational agreement of free and equal individuals capitulating to an "original position" of fairness. From this standpoint, such individuals would pursue social goods rationally and from a position in which their own welfare is advanced without reference to others, given their optimal original position of acting fairly in that society and therefore could never accept the arbitrariness of a survival lottery (Arvan 2014, 98; drawing on Rawls 1999: §3, "The Main Idea of the Theory of Justice"). But this objection underestimates the premise in Mulgan where the hypothetical future society of the broken world would be *entirely contingent* upon the complex composition of its own present. Mulgan's refusal to adopt a Rawlsian position relies on a scenario in which social primary goods could not, and therefore would not, carry with them any ontological guarantee. So, the Rawlsian paradigm upon which the "original position" finds its footing is rendered at least contingent on an absolute precariousness of goods in the first place. Arvan's defense of Rawls therefore overlooks somewhat the force of imagination in Mulgan's future scenario, not to mention the prominence of contingency on the moral apparatus.

privilege are those that are critiqued in his book on behalf of whose predicament is largely a direct outcome of such modern priorities.

This is not to say that Mulgan overlooks the counterarguments to his composed group of influential thinkers of the affluent age, but instead to say that Mulgan stresses that in the event that the Earth was to collapse into a dark and broken political ecology, that the radicals and revolutionaries (as well as their philosophical critical wing) would have utterly failed their own missions. Thus failed critical positions are rendered irrelevant in the eye of future generations' reflections on perspectives leading nevertheless to the collapse of sustainable life on Earth.[109]

In shaping the monograph as a set of hypothetical future lectures about the reader's present, Mulgan asks more than the usual practical question about political

[109] Mulgan's prefatory justification: "…what strands of contemporary philosophy would strike someone *in the broken world* as most representative of our affluent age? Accordingly, I have disproportionately chosen defenders (or at least sympathetic critics) of contemporary capitalist liberal democracy. While it may seem odd to sideline the myriad more radial critics of the Western way of life, I believe my selections bring the differences between the affluent and broken worlds more sharply into focus. Furthermore, the premise of the book is that, however much they may have talked about radical change, the internal critics of affluent society failed to avoid a broken future. They are thus unlikely to be remembered as representative of our age" (xi). While Mulgan may be correct in the assumption that the "critics" of modernity failed and were thus swept into the dustbin of history, he may overlook importantly that such critics also offered importantly different metaphysics, moral systems, and pragmatisms that might more adequately inform life in the broken world. This may be especially the case in 19th and 20th century critics of what he identifies here as his central tripartite problematic—"capitalist liberal democracy"—a triumvirate which is obscured somewhat when redirecting future students toward Nozick, Utilitarianism, Rawls, and Democracy in the substantive sections that compose the hypothetical lectures. It isn't that Mulgan ought to consider the ways that radical critique may have endured through a catastrophe of global proportions, but that such notions as the common, for example, might find more traction in a future with different contingencies and a renewed discussion about the worthiness and experience of life in an ontologically more volatile age. For a discussion of the concept of life in relation to the metaphysics of the common, see Casarino (2008a, 2008b).

societies preventing their own demise. Instead Mulgan tends to political and ethical philosophical texts of the affluent society that issued a form of political rationality equipped to consumerist overproduction, but also one that mitigated care for future peoples (not to mention other peoples in the affluent society's own political present), and thus places the blame firmly in the laps of those advocating the coextensive effects of liberal institutionalism and unbridled capitalist desire.[110] And so *Ethics for a Broken World* becomes not really a critique of particular thinkers, though that is how it is organized; instead it demonstrates the pedagogical power of deploying the worst case scenario.

Where much of writing seeks to deploy catastrophe in service of ulterior motives—critique, policy-related suggestion, creating a mystery for a reader—Mulgan deploys catastrophe in order to imagine the possible consequences of otherwise rather banal, or at least broadly received and impactful, philosophies of politics and ethics. Whereas Stephen Flynn, to whom the next section is devoted, will deploy catastrophe in order to alarm and thus in order to captivate an audience for discussions of security policy, Mulgan demonstrates that utilizing unforeseen catastrophic scenarios can likewise cast a critical and even pedagogical force. In other words, even critical minds often cast

[110] The democratic legacy of the affluent age remains an open question. For Mulgan, the denizens of the broken world would despise democracy for its capacity to foster affluence on the basis of its capacity to promote self-interest in theories of justice and fairness. But Saunders notices a strange gap where Mulgan does not fully think through its alternatives in his thought experiment. Why wouldn't Mulgan insist on, at least theoretically, separating democratic institutions from the fomenting devices of affluence? Why must he conflate them? Nevertheless, Mulgan's as I argue experimental, pedagogical device tells us something important about the stakes of future-oriented writing in the present: even the moral view often requires a dystopia in order to render its stakes believable. Saunders 2014, 27. For making the future real enough to act upon the present, see Dupuy 2005, 104.

the speculation of catastrophic disaster into powerful narratives for attempted subversions, underminings, and radical reorientations. If only to issue what could be disastrously possible in an age ideologically oriented by mundane fidelities to capitalist liberalisms, so catastrophe also becomes a tool for the Left in reexamining or even disturbing politics leading to more hegemonic outposts of contemporary life.

c. *How to mobilize policy from speculative alarmism:* The Edge of Disaster

If Mulgan's speculative scenario writing is a philosophical thought experiment intended to unsettle and denature the character of contemporary ideologies of waste and overconsumption, Stephen Flynn's speculative scenario writing serves to necessitate response—policy response—through spectacular violence. From its first words—"Consider this."—Flynn constructs a series of scenarios, one in which fleeing families suffocate to death in gridlock traffic caused by a chemical attack during a baseball game at Philadelphia's Citizen's Bank Field[111] and another in which Boston and Los Angeles ports become targeted by two teams masterminded by hypothetical radical Islamist terrorists who were partly able to traverse borders more easily because they held EU passports.[112] In this latter scenario more than 10,000 Bostonians die within hours of an attack upon a massive freighter carrying 30 million gallons of liquid natural gas, which, being six hundred times as dense as its normal gaseous volume, carried with it the possibility of being an improvised incendiary device of historic proportions.[113] In an attack carried out simultaneously in the greater Los Angeles area, two men navigated a

[111] Flynn 2007, xi-xv.
[112] Ibid. 24.
[113] Ibid, 27.

Zodiac boat armed with an IED, which the men learned to construct in Iraq and detonated on the hull of a 300,000-ton ship, the Panamanian-flagged *Mercury Glory*, and, though failing to actually sink the ship, spilled thousands of crude oil into the Long Beach Channel.[114] Despite failing to sink the ship thanks to the "quick action of the [ship's] pilot," and thus clog the channel for weeks, the *Mercury Glory* attack managed to simultaneously cause the single "worst maritime environmental disaster to hit the United States since the grounding of the *Exxon Valdez* in 1989."[115] Both attacks "soon had national and global reverberations" that extended far beyond Boston and Los Angeles, causing an ongoing catastrophic event where…

> Energy prices surged on global markets, rising to more than $100 per barrel. All of the nation's ports were put on their highest alert, effectively closing them to all inbound traffic. Given the absence of spare refinery capacity and the limited supplies of available refined fuels, gasoline prices quickly rose above $6 a gallon. The container ships that crisscross the Pacific Ocean and Atlantic Ocean with the supplies that support the global manufacturing and retailing sectors began to fill the anchorages on the West and East coasts. Many could not be rerouted, since they are too big to transit through the Panama Canal and only a handful of megaports can accommodate them. Since 60 percent of the world's container fleet is at sea at any given time, the port closure generated a domino effect. With so many vessels unable to discharge their cargo, overseas terminals recognized that they must not compound the problem and stopped loading ships destined for the United States. Since those terminals had no place to accommodate the scheduled deliveries of arriving cargo, they closed their gates to incoming trucks and trains and stopped servicing inbound feeder vessels. These conveyances become stranded outside the terminals, weighted down with shipments they could not deliver. Around the world, goods start piling up at factories and warehouses as the global transportation system became gridlocked.[116]

Here Flynn extrapolates from the hypothetical discrete event to the hypothetical global calamity. From two principally focused attacks of terror, deployed conceptually in order

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[114] Ibid, 34-5.
[115] Ibid, 35.
[116] Flynn 2007, 35-6.

to demonstrate the proposed vulnerability of U.S. ports, Flynn makes quick work of the entire global commodity trade network, effectively shuttering the entire system of global commodity exchange as it is presumed to be anchored by American consumerism writ large. In deploying such a scenario, Flynn has in mind to prepare the discursive ground to argue for a more resilient form of national security that emulates "ordinary Americans at their very best" in producing a more suffused and securitized apparatus of national security that at once more widely distributes responsibility for security to its people and at the same time supplies a heightened sense of "national purpose."[117]

Published just eighteen months after landfall of Hurricane Katrina, Flynn characterizes the attacks above as different, not because they are agentic or human-caused, or because they result from geopolitics rather than failed levies or faulty engineering.[118] Flynn rather wants to separate his fabricated nightmare scenarios from natural disasters because, unlike natural disasters, terrorist attacks seem to have no end. Hurricanes may be devastating, but the phenomenon of terrorism is different for Flynn; it is ceaseless. [119]

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[117] (Flynn 2007: "ordinary Americans," 13; "national purpose," 180.) In part Flynn's pessimism results from a concern for a present lack of capacity to protect, and in place of protection, Flynn argues with many others that regimes of resilience and preparedness ought to supplement what cannot be confronted by conventional modes of security. Mueller (2010) argues that such promotions of operational resilience – even at the level of preparing populations for broad scale emergencies – distracts from the work of identifying a scale of vulnerability for which principal actors (military forces, first and foremost) might decide upon as a range of targets to best protect. Key to their disagreement is the scope of vulnerability: Mueller sees hard targets; Flynn sees entire populations by way of critical infrastructure and global institutions (Stockton 2007).

[118] Alderson, Brown and Carlyle 2015.

[119] Flynn 2007, 36. This is a part of Flynn's argument that makes the least sense given the frequency of natural disasters.

Moving to a broader discussion of U.S. security policy issues and making suggestions for the installation of a more resilient form of securitization underwritten by new relationships between federal, state, and local government programs and their private sector partnerships, Flynn warns that, though his discussion for much of the first half of his book focuses upon the alarmingly broad range of possibilities for different sorts of terrorist attack, terrorist threats are not the defining threat of our age.[120] Instead, Flynn suggests that terrorism occupies only one place among many threats that, taken together, could potentially visit calamitous ruin upon civilization as we know it. In fact, Flynn wants to *limit* the conventional reach of militarized defense programs and promote defense policies generating a capacity to contain "cascading consequences" in the inevitable event that, whatever the threat, it overcomes security measures.[121]

The real program of *The Edge of Disaster* persists in the form of a policy prescription where Flynn's most focused argument insists that offensive techniques of "taking the battle to the enemy," as is the case in the war on terror, is counterproductive and misguided, as well as exorbitantly expensive.[122] In its stead Flynn wants a better defense that builds the U.S. "immune system" because, as he says, while "living with a

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[120] Ibid 93.

[121] Ibid. Such arguments are particularly bothersome to realists such as John Mueller who see advocating for such broad ranges of "inevitable" future calamities as potentially becoming tactical abstractions in themselves. For an explanation of protection versus resilience-preparedness as he sees it, see Mueller 2010, but also (1994) where Mueller complains of how a "catastrophe quota" obfuscates actual threat in a catch-all category including "trouble, chaos, uncertainty, unpredictability, instability, and unspecified risks and dangers" (quoted in Aradau and Van Munster 2011, pg. 3).

[122] Flynn 2007, 95. This may very well be the case, but some (Blackstone, Buck, and Hakim 2007) have shown that preparedness carries its own exorbitant costs where false alarms amount to an enormous sum that distracts from resources of first responders. These findings do not show the added costs of surges during large-scale emergencies but point to an intrinsic cost that Flynn himself does not consider.

chronic illness may not be ideal, . . . if it is treatable, a person can adjust to it and continue to have a fulfilling life."[123] It is as quintessential a biopolitical metaphor as possible, yet nevertheless something of an understatement when appearing aside earlier passages where out of his imagination alone children's lungs close and eyelids burn amidst a terrorist attack that never occurred and maybe never will.[124]

Flynn wants a more adaptive and responsive body politic. A nation that requires less the promises of a constantly overreaching state will be more readily prepared to meet the needs of fellow citizens more responsively, but the matter remains unsolved from where adaptiveness emerges. Flynn's main aim is to convince informed American citizens that while a new age may be upon them, they must ultimately adapt and augment their already existing biopolitical reality:

> Just as we have accustomed ourselves to living with the chronic risk of natural disasters, so too must we learn to live with the threat of terrorism. Rather than myopically and futilely trying to cleanse the global system of this threat, Americans need to take a deep breath and recognize that terrorists cannot destroy us. However, if cooler heads do not prevail, what terrorism *can* do is lead us to attack our own immune system.[125]

The solution? Focus on preparedness. Muller recognizes rightly that such attempts to portray the urgency of the threat is part and parcel with deploying threat as a "new reality."[126] Flynn doesn't disagree. He argues that far from the future of U.S. "immunity" to the litany of hazards facing civil society, the true act of citizenship in the age of a horizon darkened by all hazards that one can imagine (and likely more) is to prepare for

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[123] Flynn 2007, 108.
[124] Flynn 2007, xv. For work concerning the biopolitics of resilience, see Zebrowski 2009; Reid 2013; Grove 2014.
[125] Flynn 2007, 109.
[126] Muller 2010, 58.

the worst.[127] Do not rely on the notion that someone or some institution may save you. After all, according to a Department of Homeland Security (DHS) report from 2006, and cited by Flynn, "only one quarter of state emergency operations plans and 10 percent of municipal plans are sufficient to cope with a natural disaster or attack."[128] Yet rather than critique the utter lack of preparedness of the U.S. federal government to provide adequate emergency response to its citizens, Flynn argues the following:

> …preparing ourselves for disasters is an act of good citizenship. Every community has serious limits on the amount of emergency resources available to help people in real need. In a major emergency there will likely not be enough to go around, at least initially. Some people will suffer or die as a result. If we do things to reduce the odds that we will be among those demanding those services, we may be making the potentially lifesaving contribution of freeing up overstrained services for someone else who is truly needy. In other words, one reason we should prepare is not to be part of the problem.[129]

In place of a critique of government's role in disaster response and inadequate planning, instead of arguing for resources to be allocated to underprivileged and marginalized communities, Flynn argues that "good citizenship" means precisely not making demands of government for security. Decidedly and explicitly, Flynn makes the poor the "problem," thereby replacing critique of emergency management institutions and government with a criticism of those who are "truly needy."[130] In the end Flynn's

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[127] Mueller and Stewart (2011, 166-7) point out that, in fact, the "worst" might be state overreaction to statistically insignificant events. In this sense, they find that Flynn's argument for social engagement, while misguided in its emphasis of resilience, might actually help to mitigate government overreaction to attacks that are less significant than often citizens perceive them to be.

[128] Flynn 2007, 5.

[129] Ibid,155.

[130] Julian Reid and Brad Evans show powerfully how theories of resilience often consign the most responsibility to the poor and vulnerable: "Little wonder that resilience is most concerned with those deemed most vulnerable. For it is precisely the insecuritization of the most at-risk which politically threatens the security and comforts of those who are

solution is that if individuals are able, they ought to take the onus of disaster preparedness upon themselves, removing the burden from emergency management agencies.[131] This in no uncertain terms equates to the full-scale acceptance of catastrophic futures that results from the transformation of understanding the highly improbable threat of a single future disaster to the altogether *probable* event of a future catastrophe abstracted into a resilient system of all hazards preparedness at the social scale.

Yet it is not enough to make a concerned plea as a public intellectual that citizens rise to their duty to one another and unburden governments of the massive responsibility to protect their citizens.[132] Flynn deploys several brutally constructed, *entirely hypothetical* fictions in order to support his argument. My critique is not that his argument is tautologically cyclical—though it is—but that the rhetoric of disaster, the spectacle of catastrophe, comes to underwrite his project for enhanced "national purpose"

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sufficiently protected and excluded from the all-too-real effects of risk-based societies" (Evans and Reid 2013, 92). The point is that resilience programs often ask the most vulnerable to also be the most resilient; those who are by political-economic fiat already less vulnerable have less imperative to be resilient.

[131] Although pursuing a different literature, Jonathan Joseph offers a critique of such logics under the united banner of governmentality and neoliberalism (Joseph 2013). See also Zebrowski 2009 and 2013.

[132] Stockton (2007) points out that Flynn's proposal relies on adequately persuading citizens: "how the American public can be persuaded to support investment in resilience. First, we should emphasize that such investment 'has the potential to help generate economic growth' and 'strengthen the competitive position and quality of life for current and future generations of Americans.' Second, building the resilience of U.S. infrastructure 'supports the national security imperative of confronting the ongoing terrorist threat.' Flynn argues that making our infrastructure less vulnerable to attack (and less likely to cause massive economic dislocation and casualties infrastructure if struck) reduces the attractiveness of such attacks to terrorists, and therefore reduces their likelihood. Investment in infrastructure benefits both security and economic growth. Framed in this way, embracing national resilience 'can engender widespread public support.'" Mark Salter, more critically, insists nevertheless that in order for resilience to work efficaciously, that it relies on "informed and engaged individuals" (Salter 2013, 42).

and a call to redefine democratic citizenship that leaves beyond protest, critique, and other historical avenues for human beings to argue that they ought not be left behind by their governments because of strained resources, while the same governments prosecute far-reaching offensive foreign wars also against largely unknown threats.[133] Such a critique may be possible from the public intellectual in any event, where an argument is made that forceful social movements ought to undertake efforts to coerce governments to care for their most vulnerable in their time of need. Yet this is not Flynn's argument. His argument is that the coming catastrophe—be it terroristic or "natural"—is inevitable, and citizens of the United States had better prepare for the worst. His argument hinges on the reader's response to the visceral opening, the deployment of the nightmare scenario of infrastructural breakdown, of a massive dirty bomb's explosion near a massive public event. His book hinges on the reader's anxiety, the reader's visceral orientation to danger, and thus the reader is prodded by the carnage that Flynn deploys only to turn to quiet pragmatism and discussions of how "we" ought to be "tapping the private sector"[134] in our efforts to plan for what, now beyond doubt, may cause a final and fatal blow to national security apparatus's "immune system." Flynn's argument rests on a presumed

[133] This is a point where Flynn and I agree, but only momentarily. Nevertheless, he fails to understand the ways that his arguments replicate a neoliberal logic founded on myths of scarce resources, resources which had either been allocated to other means or were deemed unworthy of considerations. "Citizenship" may well consist of caring for one another, yet splintering and distributing through civil society the onus for disaster preparedness amounts to distributive securitization—a practice that only becomes necessary once avenues for adequate dissent have been rendered impotent at best. This is hardly a recipe, in other words, for true democratic citizenship but rather an avenue for further disenfranchisement, not to mention the further vilification of the poor.

[134] Flynn 2007, 149

affective play on the emotional response of the reader.[135] Without the fictions of Flynn's nightmare scenarios, it is merely a book asking American citizens to overlook the failures of FEMA and the DHS and to burden themselves with more responsibilities of their own securities. It is a book that only makes sense in an emergency, and since he hadn't one that was general enough, Flynn effectively constitutes them himself.

d. *Homeland Security and fictional terror: The "Analytic Red Cell" Program*

Simply because Stephen Flynn requires fictions in order to affect public perception about national security measures, we ought not think that creating nightmare scenarios is related to national security only from the outside. Fictional catastrophes exist at the center of security programs as well. Less than one week after plans to detonate bombs on ten transoceanic flights from Heathrow to the U.S. were thwarted, an attack that London Police Deputy Commissioner Paul Stephenson called somewhat strangely a plot to commit "mass murder on an unimaginable scale,"[136] CNN aired a program in which the thriller novelist Brad Thor noted the aporia involving surprise and its relation to threat—that large scale disasters are often unimaginable prior to their occurrence: "A lot of people said that 9/11 was a failure of imagination."[137]

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[135] Nacos, Bloch-Elkon, and Shapiro recognize this as well, see their *Selling Fear* 2011, pg. 152.

[136] BBC News, 10 August 2006: http://news.bbc.co.uk/2/hi/uk_news/4778575.stm

[137] Aired on August 11, 2006.
Transcript: http://transcripts.cnn.com/TRANSCRIPTS/0608/11/sbt.01.html This claim that 9/11 was a "failure of imagination" was also a central critique of the 9/11 Commission Report (National Commission on Terrorist Attacks upon the United States 2004, 344; quoted in Aradau and Van Munster 2011, 8).

The *Showbiz Tonight* story was covering a secret program within the DHS, known as the Analytic Red Cell Program, in efforts to expand its imaginative capacities.[138] The program developed by the DHS employs a diverse group of creative professionals to accompany security analysts in hypothetical scenarios.[139] The groups of around 20 participants collaborate for daylong sessions where the groups are provided with specific scenarios or questions that target events or kinds of attacks (even non-events) in order to capitalize on the creative capacities of members to speculate previously un-thought scenarios.[140] Several of the reports have been unclassified to date, and then entered the public realm via the Internet.[141] In one report, a diverse group was asked to consider what possible outcomes might be possible if an "Al-Qaida-like" cell were capable of attacking the U.S. with a dirty bomb (RDD attack). The report was composed of the speculations of two separate groups, including an immensely diverse set of participants such as agents

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[138] The *Washington Post* had reported on the program as early as 2004, in a feature article focusing on the involvement of another well-known author of popular thrillers, Brad Meltzer. http://www.washingtonpost.com/wp-dyn/articles/A50534-2004Jun17.html Cited in: Jackson and Frelinger 2009, pg. 3. Returning to Aradau and Van Munster's book, upon revising an earlier chapter, I noticed that they mention in passing a similar program to the Analytic Red Cell program, the National Intelligence Council, which also outlines scenarios for the future in ways that might be very similar (Aradau and Van Munster 2011, 9).

[139] "The Analytic Red Cell Program uses an approach that exploits the talents of individuals from various fields—including screenwriters, best-selling authors, psychologists, philosophers, academics, various terrorism experts and employees of the CIA and FBI—in an attempt to bring fresh insight to problems outside their respective disciplines. Participants draw on their life experiences to think like terrorists and paint a picture when there are no specific dots to connect." (Davies et al. n.d., 8).

[140] "Typically the Red Cell team assembles 20 or so participants for a day-long session at leased offices in the Washington area. Each session divides into smaller groups and takes up a different question, such as: If you were a terrorist, how would you target the G-8 economic summit, held last week in Georgia? Another recent topic was: Why haven't terrorists hit the United States since Sept. 11, 2001?" (Mintz 2004).

[141]The program allegedly dates to the 1970s, when some elements of Cold War strategy were revamped by bringing new minds into the strategic process. There were approximately 16 such reports completed in 2004 alone. *Ibid*.

from DHS, the Department of Energy, and the Nuclear Regulatory Commission; agents from the Highway Watch Program and American Trucking Associations; a "Technologist from a Fortune 50 company," an "Information Technology expert," and a novelist. The group was asked to prepare the likelihood and scenarios for two terrorist organizations: one "well-resourced" and one "poorly-resourced" cell.[142] Consensus was reached by the two focus groups who determined that there was reason to "believ[e] an RDD attack would be relatively easy to prepare and mount and could have wide-ranging physical, psychological, political, and economic impacts. The group believed radioactive materials would be easy to procure, especially from abroad, and found a variety of potential targets across the country. Participants expected that public distrust of official guidance would heighten fear and panic."[143]

More interesting is how opinions culled from the report, appearing in the previous quotation, are drawn from fictions produced by the groups themselves in order to reach levels of certainty that could allow them to judge the confidence in their recommendation. Just one scenario, deemed a "nightmare" scenario, bested other speculative attacks on Wall St. as well as Penn Station, which were deemed plausible, but not "nightmare" status:[144]

> A terrorist organization launches an initial attack using an Improvised Explosive Device (IED) enhanced with a radiological source. Authorities quickly identified the attack as a RDD attack. Shortly thereafter, the terrorists explode conventional IEDs along escape routes from the affected area (e.g., bridges), and anonymously

[142] Others reportedly participating were: Sandia National Laboratory, Defense Threat Reduction Agency (DTRA), Monterey Institute, Center for Nonproliferation Studies, Center for the Study of Traumatic Stress and Department of Psychiatry (Uniformed), Services University of the Health Sciences, Applied Marine Technology Inc. (DHS 2004, 2, 3).
[143] DHS 2004, 1
[144] DHS 2004, 5

> (and falsely) alert the media that all of the explosions have dispersed radiation. The terrorists then detonate other explosive devices, some of which actually are RDDs, every week in a different city and send anonymous tips to the media that each explosion has dispersed radiation.[145]

Of the four reports that have been made public, the one cited above and one from 2005 seem the most realistic.[146] The 2004 report focuses on the ways that an ambitious non-state assembly of militants might maximize their capacity to strike at their enemy's largest metropolis. Likewise, the 2005 report coheres around the question of public transit vulnerability and other "soft targets" such as "shopping malls, hotels, schools, and other public gathering places." In the 2005 report, two sorts of "soft targets" were listed as primary objects of interest. Either they were sites that would have elevated amounts of "shock value" like police departments or schools, for example, or the Red Cell considered that the highest priority might be "Shopping malls, hotels, convention centers, and other economic targets with retail themes…because of their high population densities and lesser security measures."[147]

The two reports discussed here have practical and pragmatic reasons and implications. The first was concerned with the facility and ease of procurement of a weapon of mass destruction, the second report with the vulnerability of so-called soft targets to a range of attacks within U.S. territorial jurisdiction. Another report from 2006 inquired into the potential to weaponize avian influenza as a means of creating a potentially highly accessible mode of chemical warfare utilizing biological contagion. This report showcases some of the more surprisingly creative potentials of the Red Cell

[145] DHS 2004, 6
[146] DHS 2005, 3
[147] DHS 2005, 3

project suggesting, for example, in an act of thought that would rival the central story of *Oryx and Crake*, that:

> the least likely, although potentially most damaging of the […] potential scenarios, would be for a malicious actor with virology skills and equipment to modify the current strain to sustain transmissibility in humans. […] The scientists consulted also described less sophisticated methods terrorists could use to attempt to create a dangerous virus.[148]

The experts imagined that "terrorist 'suicide sneezers' could intentionally infect themselves with the virus, travel to the United States, and spread the virus by sneezing in crowded, poorly ventilated areas, such as airliners or trains, shopping malls, schools, or theaters. Dissemination tactics would be as elementary as sneezing into one's hands and spreading the resulting contaminated mucous particles by touching doorknobs, handrails, or bathroom faucets."[149]

Regardless of the sometimes bizarre nature of the reports' speculative results, what emerges when looking across them is certain: DHS employs, at least in part, a wild series of sessions that brainstorm possible scenarios in order to construct reliable scenarios concerning terrorist activity. In part that the process through which national security operates is fictional, but also (in a somewhat less sensationalist sense) a mode of knowledge production that would be demonstrably similar to any meeting in which people anxiously speculate.

When nevertheless seen in conjunction with the other representative texts above, the Red Cell program tends to shed light on a larger phenomenon that is twofold: First, there is a widely interested intellectual community whose focus is on preventing future

[148] DHS 2006, 3
[149] DHS 2006, 6

events that must be imagined before they can be secured against, and, second, though these writings spring from extremely varied quadrants of intellectual production, future disaster or catastrophe is what is on the minds of many. This clustering together of diverse discursive phenomena, I will now argue, constitutes in part the basis of what Foucault called a dispositif.

IV. An anticipatory *dispositif*

Thus far I have endeavored to show a representative edifice, a possible cartography of different rhetorics of coming catastrophes. Atwood's allegorical warning shot, taking the literary shape of a relatively instrumental critique of instrumental rationality and the modern myth of scientific progress; Mulgan's powerful pedagogical critique of the irresponsibility of modern liberal capitalist democratic thought; Flynn's speculative storytelling to reinforce hypersecuritized nationalist policy recommendations; and the DHS's secret program involving fictionalists as a central part of scenario-writing for future attacks: All of these forms of writing, independently, mobilize the shared conceptualization of bleak futures in order to advance their goals. In part, the work I just interpreted differentiates from previous chapters importantly because it shows how authors outside the state share in similar discourses as those who operate within the state. This is not a binary opposition, but informs and builds upon the work earlier in the dissertation with hopes that the reader will see how, if a rationality exists, it is not shared solely by agents of the state, but can be found in a much broader set of sources.

In this sense, while it is possible and potentially interesting to view these as individuated voices remarking on the same problematic—the problem of future events potentially destroying significant human life—I want to urge that viewing their similarities is only possible given a more or less synchronic rationality that renders such notions commonplace. By showing the percolating concern for the future of human life in different ways, across diverse zones of interest, among varied modes of thought and writing, what I want to bring together edges toward what Foucault left more or less unelaborated; namely, what inhered in the dispositif. Similar perspectives and kinds of knowledge serve as the *sine qua non* of a rationality common to a dispositif: what is asked, what makes sense. For this reason I make no claim to comprehensiveness in these evocations *in situ*. Yet earlier chapters here ought to surface in a different way under the light of the dispositif, for their focus as institutional discourses—whether originating from within the security establishment, or seeking to encourage policy, or critiquing the political establishment, or constructing critical orientations toward future-oriented modes of securitization—means to collaborate in what now emerges (and be fully articulated and critiqued in the next chapter) as a rationality of catastrophism.[150]

Yet these writings also remain distinct. Their differences are what interest me now, or rather what connects them as related in discourse despite their differences. Readers who are familiar with the philosophy of social science might assume that the

[150] Aradau and Van Munster (2011) discuss a similar set of relations deploying Foucault's methodological concept of the "logic of strategy" (31-3) that they relate to the varied ways that security experts operate within an imaginative procedure animating conjectural reasoning. I explore their work on this issue more fully in Chapter 1, and so will not dwell on it here especially because their focus remains on the activities and necessities of security professionals and, as such, the theoretic work they introduce is ill equipped to telescope toward a broader set of implications. See also de Goede 2012.

notion of "unintended consequences" might inform what follows because of the way that this particular mode of inquiry attempts to inform the various outcomes of action. The theory of unintended consequences copes with making sense of the sociology of purposive action.[151] As such, one might read in the vignettes above various accounts of trying to persuade readers to agree or disagree, to become alert to the dangers that the future might hold. The complex theory of unintended consequences attempts to outline what, in the end, is hardly disputable: that sometimes purposive actions have outcomes that were not anticipated by their actors.[152] So, one might conclude that I am arguing that despite their intentions, together various literatures have the unintended consequence of assembling a discourse with wider ranging effects than they had anticipated. I will refute this idea in course, but first will briefly outline some of the more complex ideas outlining how unintended consequences operates as a theory and why – despite its social scientific prominence as a mode of causal explanation – it is ill-equipped to explain what I am after here.

The central notion of unintended consequences is simple enough to grasp when considered on a discrete level. If an actor *x* means an action to have outcome *y*, there stands to reason every chance that *y* may not occur, but instead *z* (or a nearly infinite other outcomes may occur).[153] But the more sophisticated question made visible by the problem of unintended consequences emerges when extrapolated to the problem of social order resulting from a cacophony of actors. Baert (1991) isolates four important considerations in the case of the pluralized question of applying the problematic to social

[151] Merton 1936.
[152] Merton 1936, 894; Vernon 1979, 57; Baert 1991, 201.
[153] Baert 1991, 201.

research. First, one must assume that the intentionality of purposive action must occur prior to its outcome. One must account for intention and self-reflection in order to claim that an outcome was intended. Second, considering that an action has nearly infinite outcomes in the social environment, problems of how to delimit the scope and selection of research emerge. Over time, it becomes more difficult to assess the direct link between an action and an outcome; and as outcomes interfere with one another, it becomes more difficult to select between production and reproduction of outcomes and new causes. Third, purposes and motives are much more clearly assessed retrospectively, introducing the possibility that the assessment of purpose or motive only rationalizes the action, rather than actually being endemic to the initial decision. Fourth, it can easily be taken for granted that the purposive action was *actually* intended.[154]

Taken as a whole, there are many methodological questions that emerge about how to isolate discrete actions when attempting to understand the constitution of socio-political order. But more interestingly, the aperture of unintended consequences invites considerations of who contributes to the constitution of that social order. Pace Karl Popper, writes Richard Vernon in 1979, unintended consequences accomplish a dual feat of "methodological individualism" in his explanation that opens a view wherein we can see a cumulative effect resulting in order outside of the direct intentions of individual intentions:

> *Qua* "unintended," they do not fall in the domain of psychological explanations of intending, willing or so on; *qua* "consequences," they arise from individual actions and from coincidences and collisions among them. At one stroke, then, the stress upon unintended consequences banishes the twin dangers of psychologism on the one hand and "holism" on the other: they are specifically *social* things, and

[154] ibid, 202.

> hence irreducible to individual psychology, yet they do not involve any fallacious appeal to "social wholes" or the like [as he reads in Hegel and Hegelian Marxisms]."[155]

Given an example, Popper proposes that the reader consider that someone wants to go to the mountains in order to enjoy some time away from the busyness of everyday life. If enough people develop a desire to retreat to the mountains for solitude, then no one will be able to enjoy the mountains in solitude because they will be too crowded.[156] In this example rests the variation that Baert does not hone in on: that "[u]intended consequences may arise as the cumulative outcome of similar actions performed simultaneously or consecutively by a number of actors."[157] For Baert, in order to assess the outcome of social order, one would have to retreat and ask why it is that each mountain goer intended purposively to visit the mountains; and the outcome could only be paradoxical: they intended solitude and were frustrated by so many others' similar desires. The actors' intentions in other words to not identify or isolate how it is that people wanted solitude, but instead only that their lack of solitude was unintended.

Vernon turns to Hayek to think further through this problem. Hayek's theory of economic order depended on a theory of "catallaxy," in which he offered in place of "economy," which could account for a select arrangement of business engagements, but failed to describe the larger social order appertaining to large scale configurations of economic order. For Hayek the underlying conditions of capitalist exchange instead

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[155] Vernon 1979, 57; emphasis in original. Vernon explores several other modes of explanation surrounding the thesis of unintended consequences, but Popper's is most usefully proximate to the way that I will establish a difference between that mode of thinking and my own deployment of Foucault as an alternative. For Popper in his own pen on the subject see, Popper 2002.
[156] Vernon 1979, 59.
[157] ibid

depended on something other than an organized hierarchy, but much more a spontaneous order emplacing disparate actors in a system in which they interacted according to logics of exchange. Leaving aside the various critiques of this vision of economic order, it would follow from Hayek's distinction between the economy of an organization and the catallaxy of order, that despite the spontaneity of catallaxy, the general outcomes of capital would be devoid of intention – they would result as unintended consequences of the individual actors inhabiting the system.[158] In other words, catallaxy names an order "which is essentially 'abstract,' [and must] be distinguished from whatever 'results' may contingently emerge from it."[159] Assigning an internal logic to Hayek's catallaxy, Vernon insists that the "order" then must operate along the lines of a "code" in which the individual actors inhabiting the economic system must be able to read, respond to, and understand the rules of its order. In this case, then, the "*orderliness* is not at all an incidental outcome of individuals' behavior but simply a re-statement, in a larger context, of the individuals' own disposition. [Social order] is, in other words, simply a cumulative effect," however intended or unintended, one might add.[160]

What is at stake in this seeming digression is how individual intentions do or do not accumulate to inform social order. According to the theory of unintended consequences, any theory, such as the one that I will in turn propose, that attempts to posit a rationality should have to contend with the question of whether or not the intention of its discursive contributors intended to orient subjects toward their rhetorical outcomes. What Vernon's adaptation of Hayak's theory of catallaxy allows is for a

[158] Vernon 1979, 64.
[159] Vernon 1979, 65.
[160] Vernon 1979, 66; emphasis in original.

cumulative, and spontaneous, arrangement of unintended consequences to supersede the intentions of its actors. But Hayek's theory of spontaneous cumulative order rests in fact on a contractualist agreement, calling into question the profundity of his argument for spontaneous order, but not Vernon's mission with it. Vernon, in the end, shows effectively how social order can be produced from spontaneous consensus, despite the fact that Hayek must resort to a social contract in order to harmonize his social observations with his economic intentions.[161] What neither is able to show adequately is the rationale that unifies disparate actors in their readings of social order:[162] What is it that drives Popper's mountain-goer? What is it that emplaces *homo economicus* rationally in the catallaxy of economic exchange? What is it that unifies the authors and their readers that I interpreted in the previous section of this chapter?

For Atwood, Mulgan, Flynn, and DHS as catastrophic fictionalists, there are obvious similarities of concern—the most obvious being the concern of securing human life from events that, by definition, must be speculatively constructed in order to be understood—but their differences help to articulate what Foucault calls a dispositif, or an

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[161] Vernon 1979, 66-67.

[162] Merton (1936) in the first substantial investigation into the matter of unintended consequences argues explicitly that "it must not be inferred that purposive action implies 'rationality' of human action (that persons always use the objectively most adequate means for the attainment of their end). In fact, part of the present analysis is devoted to the determination of those elements which account for concrete deviations from rationality of action. Moreover, rationality and irrationality are not to be identified with the success and failure of action, respectively" (Merton 1936, 896). In this important clarification, one might read that my immediate move from unintended consequences to an argument for rationality might overlook Merton's insistence that the two be separated. But I am explicitly moving beyond the theory of unintended consequences and establishing that a theory of rationality is imperative for understanding what animates discourse and, as a result, certain kinds of actions. In short, I am after a rationale, but not of purposive action; instead, a rationale that orients subjects to particular kinds of political life. While, in other words, the rationale may be present, and may have effects, it is not, in other words, instrumental.

apparatus which captures different practices and modes of knowledge production. In short, a dispositif is a collection of different forms of living practice in a coincident moment, brought together by a common proposition. In Foucault's terms, the nature of connection across seemingly different practices and uses of knowledge are united by discourses that, in a way, animate them:

> …a particular discourse can figure at one time as the programme of an institution, and at another it can function as a means of justifying or masking a practice which itself remains silent, or as a secondary re-interpretation of this practice, opening out for it a new field of rationality. In short, between these elements, whether discursive or non-discursive, there is a sort of interplay of shifts of position and modifications of function which can also vary very widely.[163]

Contained in this passage is Foucault's expectation that, despite there being present in a given time a variety of actions, practices, ways of thinking, etc., there are also discursive ligaments that bind together a range of different modes of existing in a given moment. This discursive rationality spans across seemingly unlike orientations to a problem as what animates a dispositif:

> What I'm trying to pick out with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions—in short, the said as much as the unsaid.[164]

It is easy to see that in a sense a set of practices share a common cohesion, that the so-called "heterogenous elements" can inhere in a larger structure of power, knowledge, institutions; in short, that political society can be organized despite a lack of lockstep coordination and homogeneity. But it bears repeating that such a dispositif marks a governing rule, a logic, which articulates concern. It is easy to look at such a passage and

[163] Foucault 1980, 194-5.
[164] Foucault 1980, 194.

see only heterogeneity, to read into Foucault's description only observable differences unified somehow, mysteriously by the position of the observer, writer, or thinker. Yet there emerges from their harmony, their coextensive nature, something that collects them, renders them knowable to one another.

When a range of institutions and practices, as different as they seem to be in the empirical sense of their external curvatures, is nevertheless brought together as a constellation that is more than merely evoked in the same breath one must decipher how they inhere. The dispositif, as a series of "heterogeneous elements," is unified by what each element itself cannot say. Foucault knew that it could not be enough to merely observe the empirical elements of a given problem, "institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions." The "unsaid" indicates a question: What makes these specific institutions, viewed empirically stand in relation to one another? Moreover, what makes it possible for an observer to see their relation? Together the sum of heterogeneous elements indicates the presence of something that they themselves do not present, or cohere to as a matter of belonging, but instead as a matter of being oriented to similar problems, occupying its own smaller roles in confronting a problem *not named by it* but by a rationality (or at very least a rationale) that governs the emergence and practice of each element as a knowledge producing part of the dispositif.

The concern articulated, an emergent rationality of the "said as much as the unsaid," means more than a dichotomy of what is explicit and what is rendered implicit.

Far from standing only as a skeletal map, the dispositif operates as much as a logic of rationality as it does a cartography of its inherent different projects and processes.

> The heterogeneous elements that make up a dispositif can be understood more systematically as rationalities and technologies of government. In modernity, all forms of government have attempted to "rationalize" themselves, to account for the "authority of their authority." Rationalities appear therefore as knowledgeable discourses that represent objects of knowledge, confer identities and agencies upon social and political actors, and identify problems to be solved (Dean and Hindess, 1998). Put simply, rationalities are ways of thinking about a social problem that will make its management practicable. Technologies are the means of realization of rationalities, the social practices which are aimed at manipulating the social and physical world according to identifiable routines (O'Malley, 1992: 269, n. 2). Governmental rationalities and technologies affect behavior and "construct" forms of ordered agency and subjectivity in the population to be governed as part of the social problem identified.[165]

In this passage, Aradau and van Munster connect the nature of rationality to the question of rationalizing problems through governance. Further, they adumbrate the ways that the rationalities of governance participate in the production of subjectivities within the language of "ordered agency," which I refer to with a softer tongue as "orientation." Yet even in this sophisticated elaboration, Aradau and Van Munster, while seizing on the interrelations of rationality and governance and how that interrelation branches out to subjectivity, still in their larger explication remain preoccupied with the explicit, with the empirical. What they do not see, or rather leave implicit, are the range of ways that the dispositif organizes a set of questions and mediates a set of truths that demonstrates how the dispositif in organizing the "said," the empirical, also organizes its own organizing principle, "the unsaid." It seems from this passage that Aradau and van Munster deal with this issue by imparting a kind of purposive action, the rationalities are "manipulated" and populations are governed intentionally. To be clear, I acknowledge intention in political

[165] Aradau and Van Munster 2007, 97; Dean and Hindess, 1998; O'Malley 1992.

life; but the usefulness of the dispositif as I read it helps to explain *across* intentionality. The dispositif allows a common logic to appear that admits political difference within a common logic.

Spinoza, writing about the extrinsic relationality of truth, brings this point to the foreground well: "…just as light manifests both itself and the darkness, so truth is the standard both of itself and of the false." [166] The accepted and therefore dominant coherence of truth for Spinoza governs falsity absolutely because falsity has no features independent of a regime of truth. So the same belongs to Foucault's dispositif, in which the regime that governs all of its disparate yet constitutive elements also governs what it is not, explicitly. All the discretions, the wrinkles and deviations, that are not explicitly accounted for by the dispositif become part of the dispositif nevertheless—the unsaid within the "said" of a discursive regime.

Despite the many commentaries on the dispositif that focus on its architectural elements—that is, the elements that are made visible by the concept's capacity to demonstrate parallel and heterogeneous actions, productions, etc.—the concept is often only deployed as a Foucauldian mechanism akin to what Gilles Deleuze often called an assemblage.[167] That is, the concept is so often deployed as an analytical mechanism with

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[166] "*Sane sicut lux se ipsam et tenebras manifestat, sic veritas norma sui et falsi est*" (Spinoza, *Ethics II*, P43S). Kordela makes a similar allusion to Marx's theory of value vis-à-vis this unique vision of immanent causality whereas "in Marx, value is the standard both of itself and of use-value, through the mediation of a third term, surplus value" (2008, 56).

[167] Some of the better recent efforts to understand or deploy this more complex vision of the dispositif include Shapiro (2013, esp. 71-85); Peltonen (2004) has written an essential interpretation of the concept, as has Bussolini (2010); while departing considerably from an exegesis of the dispositif, Raffnsøe (2008) emphasizes early some common misunderstandings that result for those that rely on Dreyfus and Rabinow for their

which to articulate force relations between a range of diverse practices and productions of knowledge. In other words, the concept is very often treated as a grand association of synchronic things, or a catchall at worst. Nevertheless, the concept in the hands of many tends, analytically at least, to come as an empirical attaché that recodes existing matter into a coherent set of phenomena for a writer. See for example Agamben's revisionist-normative interpretation:

> …I shall call an apparatus [dispositif] literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings. Not only, therefore, prisons, madhouses, the panopticon, schools, confession, factories, disciplines, juridical measures, and so forth (whose connection with power is in a certain sense evident), but also the pen, writing, literature, philosophy, agriculture, cigarettes, navigation, computers, cellular telephones and—why not—language itself, which is perhaps the most ancient of apparatuses—one in which thousands and thousands of years ago a primate inadvertently let himself be captured, probably without realizing the consequences that he was about to face.[168]

This approach seems to me ill-fated at best. If one deploys the concept, one must consider that what makes the concept useful is not that it allows one to draw connections between heterogeneous elements of thought and practice. Instead one must show what is somehow absent from the concept despite its empirical capacity to represent different elements. In short, what gives the dispositif its conceptual power is that it suggests—rather emptily, really—that there is a coherence between differentiated elements and places the onus on the writer to discover what motivates, drives, or animates any given dispositif. The dispositif is a methodological tool that takes evidence – in my case, writing – and posits a signifier as vehicle to a question: What makes these different institutions and ideas

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interpretation of the dispositif. Tina Monaghan also has a very useful paper, "We All Dreamed It," forthcoming.

[168] Agamben 2009, 14

connect? It is more, however, than a vague interpretive license, and it is not an arbitrary assertion. Recognizing the presence of different voices, or different institutions, "a heterogeneous ensemble" demands that they exist synchronically, and that their association is not arbitrary in a system of knowledge imbued with power. The presence of the dispositif requires the writer to ask not *how are these empirical elements related*, but *what made these elements come to be and make sense all at the same time*. In short the dispositif animates a view of how disparate elements unite, but through a sensible logic. It enables a view of social constitution involving discourse, but not limited to it because it shows the way that discourse is also animated by it.

This last bit, the bit about sensibility, is why the dispositif requires a notion of rationality: The dispositif requires sense-making. "Why else would so many different practices be united in a dispositif?" the empiricist asks. But the question closer to the most useful interpretation of the dispositif in Foucault's sense is, "Why would it make sense for all such disparate elements to exist simultaneously?"

To evoke Atwood's dystopia alongside Flynn's alarmist call to resilience is not to name a dispositif, but to recognize heterogeneous forms of knowledge production that consist of similar motives even despite their widely varied intents. The representative texts that I interpreted above point toward a dispositif; they do not constitute one. A dispositif is a conceptual apparatus that must be deployed, must be composed. Where one might see the heterogeneous elements as Agamben does, with such diverse elements corralled together – "prisons, madhouses, the panopticon…. [with] agriculture, cigarettes, navigation, computers…" – Agamben vanquishes nearly all meaning from what might

unify different elements at all. That is to say if one wants to know why we might mention the panopticon in the same breath as computers, one must impose upon those elements a correspondence that they do not have themselves: a reason common to them that is not composed by them alone—a rationale. This is also why Agamben misses an opportunity when he mentions "cigarettes" and not, say, cancer: If one wonders why there is a concern (or not) for cancers resulting from "mobile phones" or "cigarettes," one may begin to wonder why such a concern emerges. There is widespread fear of lung cancer and a range of other issues resulting from such objects and practices. This is not the point. The point, to be clear, is that Agamben takes the range of objects to have empirical meaning by virtue of their capacity to be associated. But he makes little effort to associate them, to focus on what narrows them. A difference between the way that he uses the dispositif and the way that I read the concept, is that he takes for granted the presence of the object. In the discourse of catastrophe the question has already limited phenomena. Many people die of cancer, or of automobile accidents, or a laundry list of other phenomena. But why are these not seen as "catastrophic"? The dispositif allows for interpretation to speak to this question, but beyond a mere matter of concern. It unifies the earlier chapters above with the discussion of literature, ethics, public policy, and imaginative security. It speaks to the resources devoted and to the governmental concern; it also speaks to what those resources and concern correspond to – which I intend by stressing the "unsaid" in Foucault's description. The dispositif allows the narrowing of phenomena to correspond to a sense of urgency, to a rationale, that limits the field of

correspondence. It speaks to the specificity, even when the concept of catastrophe represents an abstraction, of how catastrophe gains conceptual and rational force.

Why else would the litany of writers referenced here all simultaneously opine about the future of humanity as a result of terrorist attacks, natural disasters, economic meltdowns, but not include in their set of concerns cancer, which kills routinely 8 million people per year—the leading cause of death worldwide—and unevenly, as it kills the poor at rates exponentially higher than the affluent?[169] The answer lies in the production of knowledge; an anticipatory dispositif articulates what and who matters and is marginalized, renders unsaid, in this case the most common killer of human beings alive today. So as Margret Atwood parabolizes the myth of scientific progress, or Flynn warns of pending doom to a civilization, they each together seize on a technique not only common to them, but also to their readers. They speak to a shared reality, which is inhabited by the authors and their readers, but does not come to any of them – authors *or* readers – except for through the filtration of discourse. In this sense, we might read Atwood or Flynn, or Mulgan, or any other writer interpreted to this point in the dissertation in isolation. It would makes sense in isolation to show concern about their methods, the rigor of their analysis, etc. But when taken together, on a common theme, even as they agree and disagree, the commonality of the theme – premature death because of a specific threat, future catastrophe – allows for more than just a phenomenological analysis of disasters. It shows the ways that the question inhabits and haunts and, indeed, informs ways of meaning-making. The purpose of the "unsaid," is not

[169] World Health Organization factsheet on cancer: http://www.who.int/mediacentre/factsheets/fs297/en/

an authorization to pontificate, but a symptomatic question about what kind of meaning-making would associate different perspectives, institutions, purposes, agencies, and interests.

At stake is the notion that the meaning produced is not merely meaning at the level of its intrinsic utility for itself. Meaning also produces subtleties (the "said as much as the unsaid") in the sense that when a constellation of productive mechanisms of knowledge produce different meanings operating as a heterogeneous assemblage or ensemble of productive orientations—at once they produce a unity, at just the same time as they define deviations. In other words, what occurs in a dispositif is as much about producing a unified logic of sense-making as it is about producing independent modes of knowledge production required of expertise in a given cultural moment of writing.

So in a mode or moment represented in a dispositif by a diverse field of writing about pending catastrophe, there are multiple dimensions at play. There is first the aforementioned element in which the presence of a dispositif renders a set of relations visible and organizes kinds of knowledge invested in "distributing the visible and the invisible, generating or eliminating an object, which cannot exist without it."[170] In this sense the knowledge produced by speculating about coming catastrophe operates in the same realm of discourse in which the concept of catastrophe comes to be, becomes emergent under a particular lens and light, and hence is rendered palpable and knowable in diverse ways. It is almost as if the catastrophe to come gains more reality by virtue of the spectrum of different values lent to it in compounded speculations.

[170] Deleuze 2006, 339.

This diversity of values is what Deleuze calls the "curves of utterance," which "refer to the lines of enunciation where the differential positions of the elements of an utterance are distributed." Such curves, which give conceptual grip to Deleuze's unique way of reconfiguring Foucault's "the said as much as the unsaid" are "regimes that must be defined for the visible and the utterable with their derivations, transformations, mutations. In each apparatus [dispositif], the lines cross thresholds that make them either aesthetic, scientific, political, etc."[171] Deleuze offers Foucault's concept an elevated account of what is enfolded between different modes of practice in the dispositif. Put simply, if for Foucault much of what is important within the dispositif is the "said as much as the unsaid," that is also because for Foucault it is what is unified (as well as rendered hidden) by any arrangement of discourses within the apparatus. So Deleuze's account shifts the focus somewhat from where Foucault had outlined it—principally at the level of the "heterogeneous elements"—and breathes oxygen into the ways that the "derivations, transformations, mutations" are brought to intelligibility as "either aesthetic, scientific, political, etc." In truth, Deleuze enables the Foucauldian to see precisely how the relationship between discourse and "heterogenous elements" in the dispositif both conceals and *reveals* the presence of a rationality common to all practices, though not necessarily known to the practitioners themselves. Such knowledge requires interpretation.

[171] ibid.

V. Conclusion

We are told that our lives are increasingly defined by precariousness and uncertainty. It isn't that increased vigilance could protect us, nor are the problems that challenge stability matters of individual concern. In part, that catastrophe requires collective action itself makes it a political problem. Yet catastrophe – and especially the notion of catastrophes to come – rarely unify people. The diversity of authors whose concerns focus on catastrophe are almost as various as the kinds of catastrophic events themselves.

The aim here was to present for the reader an evocatively representative range, and not a comprehensive list, of textual preoccupations with "the coming catastrophe," or the possibility of high-impact, broad-scale human loss. As the readings unfolded, my aim was neither to give comprehensive reviews of the texts (as a critical review or commentary might), nor to represent the entirety of each text's work (including all that each text engages), but instead to give the reader a sense of the way that each text orients itself toward the notion of future catastrophe. In each, the text is oriented toward catastrophe in a particular way: Each deploys catastrophe in service of a political argument, and each harnesses the rhetorical purpose of catastrophe in order to project a political claim for consideration. To this extent, one might see a proliferation of the "politics of catastrophization" pace Vázquez-Arroyo's description. But the distinction that I hope to make is that, rather than a conscious rhetorical deployment à la his notion of depoliticizing threat of catastrophic consequence, what we see here is a heterogeneous landscape of different annunciations. In effect, instead of a mode of rhetoric bent to disenfranchise, we see a differentiated field of voices pronouncing the value of life in the

face of potential danger. We begin to see the evident rationality of the orientation toward future catastrophe through the very stories that culture tells itself.

Where through literature Margret Atwood constructs an allegory regarding the myth of scientific progress, through theoretical philosophy Tim Mulgan offers an ethical dilemma and therefore a pedagogical watchword of unmitigated climate change. Likewise, where writing publicly about national security Stephen Flynn evokes the speculative (and abstract) terror of under-preparedness, the DHS Analytic Red Cell project conjures speculative nightmare scenarios in order to construct new possibilities for preparedness and security against terrorism. All together, the dispositif and its attendant realities—but also its variant strategies, textual orientations, and purposes—find vividness. The different corners of the dispositif come together to demonstrate an edifice of an anticipatory dispositif adequate to creating knowledge about future catastrophes. In their vividness, however, it is critical to remember that each of them produces a fiction because catastrophism produces political orientations to fictive landscapes, dreams or nightmares of what do not (yet) exist. Catastrophism requires a catastrophe, but one that must be conjured, suggested, projected. These and many other authors may claim a necessity in their projects, but the projects are radically inventive, speculative.

This chapter did not advance the argument that catastrophic thinking—a preoccupation with coming catastrophe—is novel, or more potent than before, but instead only that one can see the preoccupation with securing against future catastrophe now permeating many sectors of intellectual life. With reference to a dispositif where

anticipations of the future animate a range of writings similar to those outlined above, it is tempting to conclude with the empirical observation that there are many voices discussing similar things simultaneously. From this perspective one can deduce that catastrophe is in vogue, or that it carries a political cachet in the sense that it is on the tips of many tongues at once. In such a dispositif, one which always mobilizes catastrophe as the worst-case scenario, though in different ways (necessarily different ways), limiting our analysis to the "heterogeneous elements" offers only the empirical components loosely organized by coupling it with a concept and noting the synchronic presence of different people discussing the same topic or concept differently all at the same time.

Yet to limit the dispositif in this way also overlooks an emergent rationality, that element of the said and unsaid that ties together—and renders sensible—the question in the first place. In no uncertain terms, to go beyond the empirical observation that there are different sorts of writing mobilizing the same force, and to recognize that a rationality common to such pursuits is in place, draws upon a political rationality of profound political force, and bearing the name, catastrophism.

5

Catastrophism II: Doomsaying and Critique

I. Introduction: Anxious Traumas in the Future Tense

Catastrophe marks not only a terrible disaster, it lurks in the contemporary mind.[1] A haunting, maybe, or an anxiety. Catastrophe, I argue, when taken in the future tense, is a collective concern. Depictions of future catastrophes in literature and cinema, never mind the news or social media, seize upon and orient political subjects to questions about death and survival, protection, prevention, and their inevitable failures. This orientation underscores countless projects of meaning making, and reflects back upon the cultures that create them as a sensibility – as rationality, as catastrophism.

A recent book takes up this notion through the lens of the contemporary cinema, submitting to the lexicon of political and cultural theories surrounding disaster the concept of "Pretraumatic Stress Syndrome."[2] E. Ann Kaplan argues that in addition to the now well-understood theory of psychological trauma known as Post-Traumatic Stress Disorder, contemporary Euro-American societies are experiencing an emergent form of

[1] Kindervater 2017
[2] Kaplan EA 2015

trauma where "*future* catastrophic events could also be traumatic."[3] Following her earlier work on media and cultures of trauma, Kaplan develops this idea as it is expressed through the cinema.[4] Transformations in narrative not only reflect the ways that individuals feel about their prospects for survival, they also mirror the way that narrative comes to inform and shape their prospective senses of efficacy in the face of what they are told is an impending dystopian nightmare.[5] Audiences experience cinemas of social and environmental collapse through the suspension of disbelief, where they project themselves as future selves, identify with those undergoing the tumults of dystopia, and in a sense, transmogrify into "virtual future humans" who experience by fiat the struggles on screen as a motion sickness of future-oriented sympathy turned anxious trauma.[6]

It may be the case that contemporary political subjects identify with their personal and collective path forward off-screen in a similar way. Could it be that the narration of catastrophism in the previous chapter marks out the web of discursive relations shaping contemporary political subjects as a pretraumatic stress syndrome? Could it be that contemporary political society suffers from a future-oriented psychological disorder? Kaplan seems to think that her research can be extrapolated to consider cultural politics under a new light. Catastrophe to be sure has long been the province of dystopian nightmare scenarios, despite recent narrative transformations in cinema and literature. But these transformations matter.

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[3] Kaplan EA 2015, 1.
[4] On collective trauma see Kaplan, EA 2005, esp. 24-41.
[5] This results from Kaplan treating cinematic audiences as witnesses, Kaplan 2015, 24. On the politics of witnessing, trauma, and image, see Azoulay 2008 & 2015
[6] Kaplan 2015, 3.

Consider for example Aradau and Van Munster, who notice that, in the most recent phase of disaster cinema, humans no longer aim to outmaneuver the disaster as was the case for so long, likely because of the hegemony of modern protagonism overcoming adverse conditions offered by teleological narrative arcs.[7] By contrast, so much of the current disaster cinema begins either with the catastrophe, or with it already passed. They write:

> [Now]…the cause of the event often remains unknown and unknowable… and the narrative instead enacts a future that invites audiences to inhabit a world where the catastrophic event has already happened. Humans are not seen as acting in the pre-evental present but in a post-evental future. As an article in the *Wall Street Journal* puts is, "[t]he story line of what happens after an inevitable disaster permeates nearly all the new projects, in contrast to movies like 'Armageddon,' which showed humanity warding off an impending threat.[8]

This break in interpretation where before human agency was allowed to triumph over disaster in a distinctly modernist way, and now the fully dystopian imaginary *beginning* with disaster certainly marks a different rationale in filmmaking, at least, if not a further-reaching logic indicating an exasperated posture toward the future of catastrophic events themselves.

This is Kaplan's point: That cinema reflects a cultural anxiety she calls pretrauma, and that pretrauma can be detected in the cognitive corridors of contemporary psychology as it presents itself as a disorder. She borrows this from the field of cognitive psychology and extrapolates from there to investigate the ways that

> Filmmakers and novelists create fictional worlds relating both to the end of the "mass utopian dream of a social world in alliance with personal happiness" and to the destructive geological force that humans now occupy on planet Earth. Utopian discourses have given way to dystopian imaginaries on a scale rarely seen in

[7] Aradau and Van Munster 2011, 2.
[8] ibid.

> earlier aesthetic periods. Indeed, the dystopian/utopian oscillation is fundamental to the pretrauma genre addressed here. Films reflect pretrauma operating in culture and discourse along with the twin processes of fear and hope. In trying to understand the complex psychological mechanisms that inhibit humans from coming together to save themselves and the planet, I argue that such processes have first to be grasped and then changed.[9]

There is much at issue here. Key to my purposes, however, are the ways that Kaplan rightly recognizes that rather than film and literature dictating to culture, political culture creates discourses in which such narratives *make sense* to audiences anyway. But this process is neither new, nor complete. Dystopia has enjoyed a place in literature for quite a long time, and *Metropolis*, a classic of the genre is nearly a hundred years old.[10] Regardless of the novelty of the genres, cinema and literature are perhaps clearer genres in which to see culture reflected; but what is new is that we can now see this catastrophism now resident in nearly all corridors of life in the west. Part of what I showed earlier in this dissertation illustrates that while given birth in cinema and literature, the imaginative capacities – and what they respond to – have effectively taken hold in the practical world of politics and security provision. But, as I have been slowly building the argument, much of that political entrenchment amongst elites is due to shifts in political culture. These pretraumas are no more reflective of a psychological disorder than they are of the metabolism of a sense of reality itself.

In other words, rather than cinemas and literatures dictating to culture, or reflecting cultural anxieties, or furthermore political culture being diagnosable with a psychological disorder, it makes more sense to begin from cultural and political production following this simple insight: Culture is oriented toward the thought of

[9] Kaplan 2015, 8.
[10] See Thacker 2011; Paik 2010

omnipresent threats of unexpected death. It is not a disorder, psychological or otherwise, but a reflection of what western political society seems to worry about losing most, and to what sinister causes. The particular imagination of catastrophic futures is a signature of cost for the society that gives it voice. Or, to borrow a phrase from Adi Ophir in his critique of cognitive psychology's view of catastrophization as a "cognitive bias," he adds:

> Cognitive psychologists seem quite confident in their ability to distinguish their patients' distorted sense of reality from their own sober evaluation of what is really dangerous. They may believe that catastrophe is in the eyes of the beholder, but sometimes catastrophes do happen, and a sober understanding of reality must overcome an opposite cognitive bias—the tendency to deny this possibility. Taking the possibility of real catastrophes into account, one may say that "catastrophization" is a disorder, indeed, but of the world, not of the mind.[11]

This idea – that catastrophization is a disorder of the world, not of the mind – makes sense within the conceptual apparatus of Ophir's work.[12] Catastrophization operates on the discursive register to determine what is worthy of being deemed actionable, whose lives are worth intervening for, and how that discursive terrain operates to articulate a vast complex of political affairs.[13] But can't it be said that there also exist elements of such a process at the level of rationality? Ophir intervenes upon cognitive psychology to insist that *individual* biases, *pace* cognitive psychology's view of catastrophization, is altogether unremarkable. For him, what's important is that discourse shapes the sorts of actions taken in a world of danger precisely because of how danger is managed through the institutional politics of knowledge production.

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[11] Ophir 2008, 40.
[12] On this set of ideas see my explanation in Chapter Four, §II.
[13] Ophir 2008

Yet I must insist that another layer of this puzzle remains unresolved. Catastrophism – not catastrophization – commands certain questions, articulates certain anxieties, defines certain threats (and less so actions) as *inevitable*. In this sense, catastrophism *preempts* action of one kind – a critical kind – in favor of the generic and general orders of protectionism that maintain the political status quo. This is what the first three chapters above set into place. Now, having shown the presence of catastrophism in the previous chapter, but not its effects, this chapter demonstrates how catastrophism shrouds the manifold causes of potential catastrophes –climate change, economic collapse, terrorism, for example – by virtue of the ways that it makes the future catastrophe seem inevitable. As such, structural change seems impossible, even unworthy of meaningful critical enterprise, for in a political milieu where the coming catastrophe is always already imminent, there is frankly never time. That is the argument of this chapter.

In the previous chapter, I registered the culture-political presence of catastrophism. In this one, I aim to outline its effects by taking aim at those who advocate for catastrophisms of different sorts. I take as inspiration the following passage from Michel Foucault's *History of Sexuality, Volume One*, recasting it for my purposes in the present tense with a view of the general network that composes catastrophist rationality:

> …let us not look for the headquarters that presides over its rationality; neither the caste which governs, nor the groups which control the state apparatus, nor those who make the most important economic decisions direct the entire network of power that functions in a society (and makes *it* function); the rationality of power is characterized by tactics that are often quite explicit at the restricted level where they are inscribed (the local cynicism of power), tactics which, becoming connected to one another, attracting and propagating one another, but finding their base of support and their condition elsewhere, end by forming comprehensive

> systems: the logic is perfectly clear, the aims decipherable, and yet it is often the case that no one is there to have invented them, and few who can be said to have formulated them: and implicit characteristic of the great anonymous, almost unspoken strategies which coordinate the loquacious tactics whose "inventors" or decision makers are often without hypocrisy.[14]

In short, it may disappoint that in the end there will be little blame to be placed, few agents to admonish. Through the concept of catastrophism I aim to present the function of power as it organizes a society contemplating its future, and potentially its demise. And I want to make sense of how, despite their being a range of actors, powers, knowledges, prejudices, and mistakes, that in part what confuses us when making sense of what is to be done, is that discourse (as a cause and as an effect) unites knowledge and power in ways that more subtly reorganize what can be thought and said; and in "dark times," potentially what or whom can survive.

II. Catastrophism Revisited

In a recent work of non-fictional essays, the novelist Amitav Ghosh wonders, with climate change and its potentials for mass extinction looming, why is it so difficult to understand that planetary ecosystems might be at a tipping point?[15] For Ghosh, unsurprisingly given his life's work in literary fiction, central to the issue is a failure of modern literature. Certainly science fiction and other genres of fantasy have long relied on doomsday narrative in order to deliver contemporary criticism. But for Ghosh, these endeavors lack the capacity to improve our understanding about the magnitude of the problems we face.

[14] Foucault 1990, 95
[15] See Part One of Ghosh 2016

Ghosh does not render this assessment as a slight against lesser literary genres in his perception. Instead, importantly, critically, it is precisely because such literatures require the reader to suspend their beliefs of reality, and enter into an imaginative construction, that they remain *outside* the world. In other words, because literatures lacking a certain degree of realism ask the reader to set aside their understanding of reality and inhabit another world altogether, literature so far fails to confront the problems of climate change in a way that truly registers in the contemporary imagination. In other words, Ghosh is begging literary fiction to engage in literary catastrophism.

In English, this word "catastrophism" has a controversial history. In academic usage it actually stems from the work of French paleontologist Georges Cuvier, who according to most was the progenitor of the concept of species extinction.[16] Before Cuvier, the notion of catastrophism referred to biblical readings telescoped onto interpretations of planetary history, where for example great floods and plagues dictated dramatic changes of course.[17] Cuvier found in the fossil record strange anomalies – fossilized impressions of species unknown – as an hypothesis, Cuvier argued from his laboratory in Paris, perhaps such species had once existed, but then, for some reason, ceased. It was a controversial idea to say the least, mostly for those who were incredulous that a natural theory of planetary change threatened Christian theology. Never before had a discovery so unexplained taken place in the fossil record in the growing scientific

[16] Davies 2016. As a nominal note, it might be important to clarify that Davies distinguishes between "catastrophism" as biblical hermeneutics and "neocatastrophism" as scientific enterprise.
[17] See discussions of this in Kolbert 2015

enterprises of stratigraphy and geology.[18] From this initial thesis, Cuvier deduced that perhaps the planet had not always been hospitable to forms of life existent in his time; and further, perhaps, great events had occurred that might have thrust species to the breaking point of their capacities to adapt to their environments. The scientific theory of planetary change, driven by unforeseen and suddenly cataclysmic events was born. Borrowing a phrase from those that understood history through a now superstitiously unscientific lens, those attributing change to Noah's flood or the rain of fire and brimstone, Cuvier argued that catastrophes at a planetary scale punctuated otherwise temperate and hospitable conditions for certain kinds of life. He called this theory *le catastrophisme*.[19]

In England, Charles Lyell was aghast at this notion that not only had great catastrophes changed the course of life on Earth, but that it was possible for species to simply cease existence.[20] As a student of William Buckland at Oxford, Lyell rejected his teacher's efforts to relate the scientific discoveries associated with catastrophism with Biblical narratives.[21] He and his students had been considering global historical change as well, and also through the fossil record. As Charles Darwin sailed around the world in the *HMS Beagle* he collected fossils wherever he could find them, attempting to add depth and comprehension to the growing fossil record depicting the history of living species, permanently cast in strata of stone.[22] The result was a competing theory to catastrophism

[18] Some earlier naturalists, Buffon primary among them, had speculative arguments that something like extinction may occur, but failed to postulate the theory with evidence.
[19] Davies 2016
[20] Brantlinger 2013, 23.
[21] Buckland 1832; Kolbert 2015, 45.
[22] Kolbert 2015, 50-53.

– gradualism[23] – which argued that species did not cease existence, they *adapted* to changing conditions. As such when their environments changed, adding new stimuli and challenges, some members of species would of course fail in the wake of more arduous environments, but those whose particular aptitudes allowed them to flourish must have caused genetic transformations. Species didn't go extinct. They evolved.

In this case it might be true that some fossils weren't representative of what scholars knew at the time, the gradualists argued.[24] But that would more so reflect the inadequacy of the fossil record at the time. Surely as the fossil record became more comprehensive, it would become clear that a more even arc of evolution had transpired.[25] The assumption that the gradual evolutionary *telos* of species survival triumphed over catastrophism for nearly 150 years. Only in the final decades of the 20th century did geologists begin warming to the idea of catastrophism again, after so many excavations showed vast populations of incomparable species, and the discovery of the Chicxulub crater in the Gulf of Mexico.[26] With the underwater discovery of Chicxulub in the 1980s, planetary historians such as geologists and paleontologists reconstructed a narrative birthed nearly two hundred years prior in a research laboratory in Paris. An asteroid had surprisingly struck the planet in an age where dinosaurs ruled as supreme predators, ending their existence in a matter of hours. [27]

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[23] Gradualism is also frequently referred to as "uniformitarianism."
[24] Luciano 2015, 175
[25] Dawson 2016
[26] Davies 2016, 29
[27] Known as the Alvarez hypothesis, the empirical journey to substantiating dinosaur extinction as a result of an asteroid was first argued in a scientific publication in 1980 (Alvarez and Alvarez, et all 1980). Earlier attempts were published as early as 1953, see Kelly and Dachille 1953.

Nevertheless, outside of the English use of catastrophism as a niche view in geology, mostly as a contrasting thesis to the dominant view of planetary gradualism, the word catastrophism seeped into common usage. In French, the word *un catastrophist* is an epithet for a paranoiac, a streetcorner doomsayer. Those people we come across on occasion with sandwich boards or signs declaring "The End Is Near! Repent!" These are catastrophists. But anymore they needn't be zealots or apocalypticists in the religious sense. The word represents a failure to grasp a sense of reality, and by deploying the notion, the utterer means, of course, that the end is not near. The catastrophist is some kind of madman.

Beyond a conceptual migration from the sciences to quotidian pop psychology, the concept of catastrophism in its everyday use is fascinating because of the ways that, even in a moment defined by the omnipresent representation of catastrophic possibilities, the strangeness of someone believing the end is imminent cannot be but disorienting. Doesn't the presence of the coming catastrophe, in all of its magnificently powerful abstraction, mean that we all, in one way or another, are catastrophists? Wouldn't we all believe in some way – or in a litany of ways – that be it climatological, technological, economic, moral, or some combination, that the future is as bleak as the streetcorner doomsayer says, even if we deny this madness in ourselves? If we agree with Davies that "high speed global warming is not an imminent threat but the new condition of the earth," shouldn't we at least reasonably accept the catastrophist's posture to the slightest degree?[28] Don't the stakes of being wrong in our certainty that human life will persist

[28] Davies 2016, 40.

with gradual evolutions against changing conditions suggest that a bit of catastrophism is in order?

Just before his death, Ulrich Beck published an essay entitled, "Emancipatory Catastrophism: What does it mean to climate change and risk society?" Therein Beck argues for a "cosmopolitan perspective" beyond the logics of nation-states and global elites, where a "community of risk" can coalesce around the idea of common doom stemming from climate change, or even potentially work to resolve what might cause it.[29] In a sense, Beck means that a common awareness of catastrophic futures – especially with reference to climate change – is not merely dystopic and stultifying, but actually productive:

> Climate change is not climate change; it is at once much more and something very different. It is a reformation of modes of thought, of lifestyles and consumer habits, of law, economy, science and politics. Whether presenting climate change as a transformation of human authority over nature; as an issue of climate (in)justice; as concerning the rights of future generations; or as a matter of international politics and international trade; or even as an indication of suicidal capitalism – all this is about the dramatic power of the unintended, unseen emancipatory side effects of global risk, which already have altered our being in the world, seeing the world and imagining and doing politics. Global climate risk could usher in a rebirth of modernity.[30]

He continues, only several lines later, "The global climate risk, far from an apocalyptic catastrophe, is instead – so far! – a kind of 'emancipatory catastrophe.'"[31] In an echo of Homer-Dixon's "upside of down" thesis, rightly excoriated by Vázquez-Arroyo, Beck seeks to find the ways that community emerges and transforms in the foreground of

[29] Beck 2016a, 76
[30] ibid, 79
[31] ibid.

catastrophes both past and future.[32] In a rather strange way, recalling Kurasawa, Beck argues that communities make meaning in such dreaded times, and as a result cohere and innovate in ways that may create new sparks of hope through a "symbolic environment" inclusive of climate aesthetics and a range of tributaries to what I have been referring to as discourse.[33]

The problem of course is that such communities are frequently constricted by regional and territorial outlines of the nation-state, and as such, even when calcified by the looming crisis, solutions are usually still guided by logics of competitiveness in capitalist political economy, as is the case with green technology and eco-capitalism. Shinichiro Asayama recognizes the nature of this technocratic disposition in what Ulrich Beck, in a slight critical correction, calls "technocratic catastrophism."[34] Yet, Beck thinks that the presence of cosmopolitan networks of norms could lead the Kurasawian community of meaning-making to transcend this order toward something like a global village of catastrophists. This is his view of emancipatory catastrophism: That the crisis might bring about a new community borne through new expectations, in a "cosmopolitan moment" promising a new modernity.[35] He might be right that such a view offers "a new variant of critical theory," but its utopian liberalism is unbridled. And as for the presumably emergent "cosmopolitan moment," I remain skeptical at best.[36]

After all, catastrophe does not affect all equally. I showed in Chapter Two just how pernicious this line of thinking can be for the poor and vulnerable, especially as

[32] Homer-Dixon 2006; Vázquez-Arroyo 2013, 745.
[33] Beck 2016a, 81
[34] Asayama 2016; Beck 2016b
[35] Beck 2016a, 83
[36] ibid

states abandon security measures in favor of thick programs of resilience. Hans Magnus Enzensberger, the poet that I have returned to on occasion for illumination of the pervasiveness of catastrophic thought, wrote, unsurprisingly poetically, already in the 1970s:

> We have also lost another traditional aspect of the end of the world. Previously, it was generally agreed that the event would affect everyone simultaneously and without exception: the never satisfied demand for equality and justice found in this conception its last refuge. But as we see it today, doom is no longer a leveler, quite the opposite. It differs from country to country, from class to class, from place to place. While it is already overtaking some, others can watch it on television. Bunkers are built, ghettos walled in, fortresses erected, bodyguards hired, on a large scale as well as a small. Corresponding to the country house with burglar alarms and electric fences, we have whole countries, on the international scale, who fence themselves in while others go to ruin. The nightmare of the end of the world does not end this temporal disparity, it simply radicalizes it. Its African and Indian versions are overlooked with a shrug of the shoulders by those not directly affected—including the African and Indian governments. At this point, finally, the joke comes to end.[37]

Enzensberger saw in the 1970s a certain prospective denial by the privileged; and now humanists and social scientists realize that climate catastrophe is already underway.[38] In short, the battle to ward off future climate calamity has already been lost by some. And many of those populations whose vulnerability is overlooked by Beck in his new cosmopolitanism, emergent or not, have already become refugees, or victims of climate wars.

Emancipatory catastrophism, insofar as it points toward a hopeful rationality that mobilizes a future catastrophic threat in order to finally convince people to have new expectations is both unnecessarily homogenizing, as well as Panglossian at best. Luckily Beck's catastrophism was not the only one on offer. Other, richer attempts have been

[37] Enzensberger 1978, 75-6
[38] See Parenti 2011; Klein 2014; Morton 2013

made to draw upon the *catastrophisme* of the doomsayer. And they are deployed in a way that aims to address the problems that might help move beyond Beck's simple liberalism. These ideas do not begin from the presumption that people the world around have an intuitive sense of looming catastrophe, at least not from climate events, and certainly not with the full gravity of potential species extinction. In a word, these earlier philosophical catastrophists seek to *induce* catastrophism upon those who may believe in disaster, but fail to understand its magnitude.

Jean-Pierre Dupuy and others, but first Dupuy, have sought to recuperate the speech of *les catastrophists* as a model for outmaneuvering the pending catastrophe that, with the force of a planet, could potentially spell the end of life as human beings have come to understand it.[39] The problem, recalling Amitav Ghosh, might not be that we could perish, but that we are so deranged that we cannot see the damage that we have done.[40] But Never to mind the effects that human activity has already had on a fragile planet historically predisposed to calamitous tumult. Hence Dupuy articulates a concept of "enlightened catastrophism," revolving around a new metaphysics of time to which I will return in short order. But this enlightened catastrophism is juxtaposed to a more everyday sort of catastrophism in which people can lament what has gone wrong, yet leave things at the level of conversation. This is mostly because the catastrophe that Dupuy sees pending isn't real to most of us – it remains a figment of the imagination, or a dream of potentiality rather than something serious enough to deserve our attention.

[39] Dupuy 2002, 2005, 2013
[40] Ghosh 2016

Dupuy's idea of our contemporary predicament evolves from one paradox to another. The first is a paradox of modern humanism itself; the second, he calls a paradox of doomsaying.[41] I will arrive at the paradox of doomsaying soon enough, but should first outline what renders it logical – even if its outcomes seem so faulty in reason.

So, first, the humanist paradox recognizes that modern humanism values its innovative capacities, at the same time as modern innovation heightened both the terms and the magnitude of modern catastrophes. Modern humanism, for Dupuy, in other words produced both the direness of the problem of catastrophe and at the same time laid an exclusive claim to the amelioration of its own effects:

> We now know that the conceited humanism that brought the modern world its incredible dynamism places human affairs in peril. We are living in the shadow of catastrophes that perhaps systematically threatens the disappearance of the species. Our responsibility is enormous since we are the sole cause of that which we will become. But the sentiment of responsibility is likely to increase exceedingly the arrogance of its cause. Once we persuade ourselves that the wellbeing of the world is in our hands and that humanity owes it to itself to be its own savior, we risk ourselves always rushing headlong in a great panic, looking evermore like the destiny of humankind.[42]

Dupuy opens his *Petite Metaphysique des Tsunamis* in this way. Announcing that at the heart of a text on the politics and metaphysics of so-called natural disasters in an age of climate change, but also at the moment frothing at the mouth about the global impacts of

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[41] Dupuy's English translator often renders "*le catastrophisme*" as "doomsaying," a choice that is clear and literal. I render it as "catastrophism" so that the conceptual specificity remains in tact and related to epochal change resulting from episodic ruptures rather than continuous change, in other words, as it is well established in English by way of the discipline of Geology. For useful conceptual histories, see Ager 1993, Palmer 2010, and Huggett 1998. For attempts to politicize the word, see Lilly 2012. In describing the paradox of doomsaying, Dupuy however uses a different verbiage than catastrophism: "le paradoxe de la prophétie de malheur," perhaps most literally rendered as a paradox of the prophesy of misfortune, or the paradox of woeful prophesy. I find "doomsaying" to be closer to his sense of style and use it here as a result.

[42] Dupuy 2005, 9. My translation.

terrorist networks, that modern humanism is both the cause of climate change by way of its "conceited" belief in ceaseless progress, as well as potentially the only solution to its productive capacities available.[43] Modern humanism proclaims that reason allowed for technological innovation, the self-same innovation arguably productive of industrial pollution the scale of which could alter the climate of a planet. And yet, this same modern humanism knows only itself as its plausible solution. As such, the "arrogance of the modern world" is that it sees its most destructive capacities also as its only recourse to survival.[44] It is the unanticipated outcome of Descartes's dream that practical philosophy, as the rational deployment of scientific thought against superstition, would render humankind "masters and possessors of nature."[45]

This is not by chance. So different from the theory of catastrophization, Dupuy's catastrophism does not allow for depoliticizing rhetoric because the stakes of the largest catastrophes – those tied to climate change and species annihilation – remain obscure to most people. It isn't that people aren't aware that climate change is an issue, or that they don't have some idea of what it might foreshadow, but that contemporary human beings often enough cannot fully grapple with the stakes because they cannot believe such a future is real.[46] Western people might be alert to their own vulnerability in a cinematic way, but Dupuy insists that when it comes to the worst-case scenario, that people are too caught in an intuitive belief in progress to trust that any other outcome is truly possible.

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[43] The following discussion of Dupuy and Neyrat draws heavily on Kindervater 2017.
[44] op cit, 29; my translation
[45] Descartes 1998, 35.
[46] This insight betrays a diagnostic affinity between Ghosh and Dupuy, even if their proscriptive differences are quite stark.

In other words, for Dupuy a paradox of humanism languishes in a faulty metaphysics, not just an ideological predisposition: the promises of humanism (especially the notion of scientific progress as a tool of self-determination) created the problems facing humanity today and can only offer its tools as solutions. The modern notion of time, of linear cause and effect, as promised by modern humanism operates as a rectilinear decision tree. That notion of time enables a false sense of security to the extent that it obscures a range of aleatory frequencies of cause and effect to be shrouded by an understanding that innovation always causes solutions to problems – this may not be obvious in the moment of decision, but always appears so historically.[47] In other words, modern humanism relies on a temporality that it cannot make use of if it wishes to transcend itself and secure its survival from itself. Dupuy refers to this as an "ordinary metaphysics."[48]

In his view, ordinary metaphysics – the temporality common to contemporary life that forecloses on real action against mounting catastrophic dangers – results from

[47] Agamben on the idea of "modern time" versus its various iterations according to particular philosophies: "The modern concept of time is a secularization of rectilinear, irreversible Christian time, albeit sundered from any notion of end and emptied of any other meaning but that of a structured process in terms of before and after. This representation of time as homogenous, rectilinear and empty derives from the experience of manufacturing work and is sanctioned by modern mechanics, which establishes the primacy of uniform rectilinear motion over circular motion. … Before and after, notions which were vague and empty for Antiquity – and which, for Christianity, had meaning only in terms of the end of time – now become meaning in themselves and for themselves, and this meaning is presented as truly historical. As Nietzsche had already grasped, with Hartmann's "process of the world" ("only process can lead to redemption"), the idea governing the nineteenth-century concept of history is that of "process." Only process as a whole has meaning, never the precise fleeting *now*; but since this process is really no more than a simple succession of *now* in terms of before and after, and the history of salvation has meanwhile become pure chronology, a semblance of meaning can be saved only by introducing the idea – albeit one lacking any rational foundation – of a continuous, infinite progress." (Agamben 2007, 96-7).

[48] Dupuy 2005, 18.

modern thought itself. The future, in the view of ordinary metaphysics, *lacks reality*. Modern thought, in Dupuy's mind, understands "the" future, as only one among many – plastic in its possibility – where action in the present determines it as one future or another, but by no means the only future.[49] This is an interesting way of underscoring his paradox of humanism. One can see the conceptual flexibility of the future – that the future is not a determined outcome – as determined in present practice. The modern disposition and why the future catastrophe seems less believable results from the modern metaphysical understanding of time wherein the future *relies* on present action. This means as much that the future catastrophe could be avoided or prevented, as created. Most importantly, it means that major catastrophes always rely on human activity.

It isn't a controversial assumption to state that human activity depends somewhat upon what is believed possible. Practical regimes of action exist that attempt to designate rational actions in lieu of perfect knowledge. The first three chapters of this dissertation expose some. The precautionary principal is another well-known strategy for dealing with inadequate knowledge. But, Dupuy insists, the precautionary principle will fail because it prioritizes knowledge over belief; fact over intuition:

> It is not enough to know in order to accept what one knows and then to act on it. This fundamental reality is foreign to the so-called precautionary principle, whose implicit premise is that we do not act in the face of catastrophe because we are not sure of knowing enough to act effectively. It is plain, however, that *even when we know something with certainty, we may be incapable of believing what we know*.[50]

The precautionary principle, also sometimes referred to as the one percent doctrine, judges adequate knowledge against unknown knowledge with a view against the potential

[49] ibid, 15-20.
[50] ibid, 11. My translation and emphasis

impact of inaction.[51] In short, the precautionary principle argues that extreme caution should be taken when results (or data) are uncertain. From Dupuy's perspective, however, we often suffer from a superabundance of information.[52] Even when a dearth of information is not the problem, inertia can persist. For him the issue is not the reliability of information; it is the incapability, sometimes, to "believe what we know."

To summarize, for Dupuy, the conviction of modern thought prioritizes technological advancement as progress. Progress led to astonishing achievements, but will also drive human civilization to the brink of collapse, if not beyond it. The irony is that modern thought is so entrenched in progressive metaphysics, that it is nearly impossible to believe that the dystopia we almost certainly tend towards will come to pass because it is only one of many possible problems that modern innovation is supposedly so well-poised to solve. The refusal to accept the coming catastrophe, or what Dupuy refers to as a "blindness to the apocalypse" feeds upon the fact that "the willingness of a community to recognize the existence of a risk depends on the degree to which it is conceived that solutions exist."[53]

The ultimate effect of this ordinary metaphysics carries a stultifying effect. When on occasion a knowledgeable catastrophist speaks, the modern attitude tends to deny his

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[51] Suskind 2007; see also Kriebel, et al. 2001

[52] Aradau and Van Munster make a very similar argument in 2011, 7. Though, as I established in Chapter One, Aradau and Van Munster differ from Dupuy who is skeptical that people generally believe that the worst will occur because, coming from a study of security experts, they see more certainty: "Although not present yet, the future of catastrophic events seems taken for granted in current discourse: the catastrophe *will* happen" (Aradau and Van Munter 2011, 13). Their argument focuses largely on the work of security experts and, as such, is less capable of addressing the broader implications – not to mention the broader belief in the coming catastrophe – of this trend in contemporary political culture.

[53] Dupuy 2013, 27

or her plausibility. If it is the case that we might often have adequate knowledge – especially in terms of "natural" catastrophes to come – then those who profess a deeper knowledge, not just of the facts, but of what they portend, are often "mocked and jeered."[54] In the presence of cinemas and literatures of disaster, it cannot be that such catastrophes are literally too difficult to imagine. It is much more likely that it *seems unlikely* that such a future could transcend modern technological nimbleness. So when a catastrophist speaks, even standing upon good knowledge, the catastrophist speaks in contradistinction to what is known: That modern technological capabilities surmounts the most beguiling of problems; and, as a result, at best, this catastrophist's nightmare has become only the newest problem to be solved.

Dupuy's second paradox then is the paradox of doomsaying. This paradox has two sides. On one hand the catastrophist – the Cassandra, the prophet – bespeaks the future, making claims about the catastrophe to come. On the other hand modern thought rejects this teleology, this future-orientation, not because of its lack of rationalism, but because of its dedication to the catastrophist's central principle that *the future is real*. If ordinary metaphysics operates in a rectilinear way, though through a series of decisions that betray its rectilinearity, toward the *only future* out of a formerly flexible idea of many futures to come, then the catastrophist stands orthogonal to this futurism. Dupuy's catastrophist, especially when attempting to make political claims for salvation, cannot but believe the future to be both singular and real.[55]

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[54] ibid
[55] Dupuy 2005, 11.

Therefore, for Dupuy, in an age of catastrophe where states of affairs seem to tend only toward worsening states of affairs, a new metaphysical orientation is necessary; that is, if future catastrophe is to be not only known, but also, fatefully, and perhaps more importantly, believed. Otherwise, the humanity of today will remain "on a suicidal course, headed straight for catastrophe."[56] Because in the sense that he renders ordinary metaphysics, the future catastrophe only becomes believable "once it has occurred," a point at which late quite obviously it is already too late.[57]

Dupuy's solution is to understand time as a project (*le temps du projet*) which transforms the future into a guaranteed reality, rather than a merely unformed not-yet.[58] In the way that ordinary metaphysics treats the future, events to come are merely possible and subject to their rendering in the present. In time as a project, however, the future gains reality from being believed – from being "fixed" by narrative and discourse. In making the future singular and real, in fixing it in imagination, the catastrophist removes the innovative potential of modern thought because the future is no longer *preventable* because there is no alternative, only the project of forestalling the inevitable.[59] In this sense, *le temps du projet* is both time as a project, but also *projected time*.[60]

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[56] Dupuy 2013, 21
[57] ibid 27.
[58] Dupuy 2002, 175-97.
[59] Compare with Koselleck, who through his three layers of temporality (short-term actions, middle-term procedural constraints, and long-term permanently repeatable possibilities) makes a strikingly similar comparison, though in the end deeming such a version of foresight reliant upon utopia: "…prognostic certainty ought to increase again if it becomes possible to incorporate more delaying effects into the future, delaying effects that become calculable as soon as the economic and institutional framework conditions of our actions become more stable. But this is probably only a utopia, one which cannot even be derived from previous history" (Koselleck 2002, 147).
[60] Dupuy 2007, 11.

Projected time as the metaphysical modus operandi of enlightened catastrophism operates as a temporal *futur antérieur*.[61] Invoking the undesirable future endows it with meaning and attempts to empower the language of a fixed future to affect both action, and action motivated by belief, in the present:

> …enlightened catastrophism invites us to make an imaginative leap, to place ourselves by an act of mental projection in the moment following a future catastrophe and then, looking back toward the present time, to see catastrophe as our *fate* – only a fate that we may yet choose to avoid.[62]

To deploy this projected time, to align oneself with a complicated metaphysical posture toward the apocalypse, enlists the everyday catastrophist as an "enlightened" one because rather than merely projecting paranoia, the enlightened catastrophist projects knowledge and belief to crystalize a future that carries with it unbelievable potential impact. As he writes, "It may be that the future does not need us, but we, we have a need for the future, for it is it who gives meaning to everything that we do."[63]

The enlightened catastrophist recognizes that the future – the projected future made real – must be produced in a manner in which the severity of its reality appears important enough to recognize. In essence, the projected future must challenge survival itself. The projected future must reflect back on the present, codifying the future as unavoidably disastrous, and *necessarily* catastrophic. Enlightened catastrophism is not simply a metaphysics, then, but a "ruse," a sleight of hand intended to disabuse modern thought and its obsession with progress from its reliance on itself:

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[61] Dupuy 2013, 33. See also Fuggle 2014, 37 for a nice comparison between Dupuy and Benjamin on this subject matter.
[62] ibid.
[63] Dupuy 2004, 16. My translation and emphasis.

> Enlightened catastrophism is a *ruse*, that consists in separating humanity from its own violence, in making this violence its destiny, without intention but capable of its annihilation. The ruse consists in acting *as if* we will all be its victims in keeping with the spirit that we are the unique cause of that which will come of us. This double game, this ploy, may just be the condition of our salvation.[64]

Dupuy's enlightened catastrophism thus *produces* the future catastrophe – however metaphysically – as a rhetorical move. If in the present the future catastrophe remains opaque to most people in their "ordinary" metaphysical orientation to time, the ruse of enlightened catastrophism does not simply invoke a catastrophe, it invokes *catastrophism* in order to frighten, in order to render political subjects more predisposed to act in accordance with the gravity of their actions. Moreover, if the coming catastrophe is "real," if it has been *made* real, then it stands to reason that is because discourse has rendered it both material, as well as to some degree operable – as strange outcome for a theory that attempts to circumvent the modern progressive sentiment privileging innovative action.

There also exists here a strange point of connection between Dupuy and Vázquez-Arroyo, who the reader will recall focuses on an authoritarian deployment of the rhetoric of catastrophe in order to consolidate political power.[65] Though, different from the way that Dupuy imagines this process, Vázquez-Arroyo laments what Dupuy understands as necessary – the paramount dependence of human survival on a discursive ploy threaded through the complexity of an alternative metaphysics. Dupuy's enlightened catastrophism implores this necessity, places the survival of the species (and likely many other species as well) on the possibility that such a ruse might just work. Regardless, where Dupuy's

[64] Dupuy 2004, 100. My translation
[65] Vázquez-Arroyo 2013, 745

optimism is measured, it still places a great deal of importance upon whether or not such an "enlightened" stance might prevail. Which, it should not go without saying is an optimism that many, Vázquez-Arroyo foremost among them, are more than skeptical of because of how it overlooks both the contested politics over, as well as the experiences of many who already suffer from catastrophism's prominence.

Frédéric Neyrat takes the notion of catastrophism even further than Dupuy's somewhat pragmatic approach. Neyrat's argument pushes the streetcorner doomsayer – and therefore a more quotidian vision of catastrophism – to the forefront. In this day and age, he argues, one needn't rely on a "new metaphysics" (though Neyrat's work engages metaphysics quite closely). Neyrat's view of the catastrophist is not one who is governed by a notion of "time as a project," but in a "crazy relation to the world."[66] For him, the notion of catastrophism is much more intuitive. We *are* in a crazy relation to the world. We *do* live in an age where we are sometimes rendered impotent to change things that may cause our destruction. That *should* admit some anger and some fist shaking. In fact, to be a catastrophist, according to Neyrat is a *legitimate madness* (*légitime démence*).[67]

Yet Neyrat doesn't encourage the reader to embrace paranoia. Rather he describes catastrophism as a result of inhabiting a particular kind of socio-political order: "the 'society of catastrophe' presents the conditions of possibility for a feeling of vulnerability to catastrophe."[68] In other words, Neyrat's catastrophism has no need, as does Dupuy's of being *induced*, but emerges from social order, from discourse, that seems to prioritize

[66] Neyrat 2009, 36. "…*un rapport démentiel au monde*…"
[67] Neyrat 2006, 108
[68] Neyrat 2009, 108

catastrophe – and especially future catastrophes – in a way that derives their meaning not from convoluted metaphysics, but maybe as Ophir might put it, "[from] the world."[69]

Catastrophism from below, one might call it. Nevertheless it is imperative to understand Neyrat's catastrophism emerging from a radical immanence – from a world, not descriptively understood as capable of transcending itself – but immanently imperiled by its very possibility.[70] Such a world inspires as it were new sensibilities, and new orientations to life in its present tense.[71] Seizing on a passage in Ulrich Beck, Neyrat organizes his thesis as resulting from the complex formulations of globalization – a transformative force of geography, surely, but also of thought, in which ideas of an intricately interconnected world makes one global imaginary possible while simultaneously foreclosing another, transcendent, mode of thought. In contemporary thought Neyrat recognizes a conceptual landscape intrinsically global in scope (or at very least immanent in its cosmology), animated fully by the associated risks and magnitude of catastrophe: "While all earlier cultures and phases of social development confronted threats in various ways, society today is *confronted by itself*."[72]

Neyrat aligns in a way here with Dupuy. The cosmology of a planet is de facto globalized. What modern thought and its priority of practicality wrought was a phase of *human thought* that was fully global in nature. Therefore when Neyrat (citing Beck) asserts that "society …is confronted by itself," the point emphasizes that it isn't "the

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[69] Ophir 2010, 60

[70] Jean-Luc Nancy (2012) makes a very similar argument where various technological causes unify the planet, but also transform Earth into a planet rendering both disaster and its causes roughly equivalent.

[71] Neyrat 2009, 37

[72] Beck 1992, 183. Cited in Neyrat 2009, 37

world" as an object transcendent to humans or their knowledge that has changed, but that knowledge-making has changed. This new immanent comportment, and fully afflicted by the possibilities of disaster, means that ideas about existence, what is at stake in existence, and how to provide security are also at stake.

Such is the case for why Neyrat's argument for catastrophism corresponds to a sympathetic critique of biopolitics. It is well known that for Foucault the emergence of biopolitical order sprung from shifts in the administration of life in the modern age. Biopolitical modes of governance were contingent upon rendering life – administering life – as a calculable object, thus bringing the concept of life into full view under the reach of modern governance. This transformation from what Foucault called "sovereign power" to biopower had many consequences, but one most important for our purposes, was that life and death should become less arbitrary under biopolitical regimes. Life and death should become loci of management within modern executions of power, knowledge, and governance. Thus the famous Foucauldian dictum, "to make live and to let die" corresponds to an emergent productive apparatus of promoting life as object of governance.[73] As such, biopolitics, it follows, also mitigated the threat of arbitrary death.[74] Neyrat builds on this idea, focusing counterintuitively on the focus on death: "…it is because the grip of death has slackened that biopolitics could be put into place."[75] But in a moment where it can be seen so clearly that states who might be assessed as biopolitical in nature regularly recognize how future threats exceed their administrative capacities, it is possible that a chasm is opening from within the biopolitical emphasis of

[73] Foucault 2003, 241; Foucault 1990, 136.
[74] Mbembe (2003 and 2017) critiques the completeness of this notion.
[75] Neyrat 2009, 42

Foucauldian political theory. How else could the management of life take place, especially in a sense when states cannot "let [their subjects] die," especially if states cannot even really predict or defend against the coming catastrophe? Or, as Neyrat will put it, "the proliferation of risks and the web of catastrophes seems to tighten the grip of death."[76]

Neyrat argues this to the hilt, so much so that he entitles his book, *Biopolitiques des Catastrophes*. Such a biopolitics, when seen through the lens of an administrative state still obsessed with life, yet incapable of ameliorating the threat of death beyond its speculative capacities, requires another look. In a state of affairs in which practical strategies like the precautionary principle are less sensible approaches, and regularly fail, the maxim of making life and letting die loses some salience to be sure.[77] In fact the precautionary principle doesn't simply fail to address uncertainty; it fails because catastrophe in and of itself exceeds certainty, leaving those who expect some semblance of biopolitical security all the more ridden by anxiety.

This anxious catastrophism could not be more different in the end from Dupuy's induced "enlightened" version. Dupuy's diagnosis of the problem resulted in his requirement for a new metaphysics borne from the intuitive insight that perhaps we are already equipped with the data that our destiny is extinction—yet we cannot grapple with this destiny because we cannot believe it to be true. As a result, in a wicked political maneuver, that for what it's worth Dupuy does not believe can be political, the "metaphysics" exists merely as a trick, a "ruse," in which contemporary humans besiege

[76] ibid
[77] The critique of the precautionary principle is yet another point of connection between Dupuy and Neyrat

themselves with enough anxiety that perhaps they will take their destiny as foregone conclusion.

Neyrat's catastrophist already suffers from this anxiety. His catastrophism recognizes their own life "as if the Apocalypse could happen to us constantly, as if the catastrophe now continuously defines a *crazy relationship to the world*."[78] Neyrat's catastrophist is haunted and, insofar as that haunting presents the catastrophe with its condition, is oriented not only to human vitality, and to its existential vulnerability, but also expresses a kind of catastrophic subjectivity at the nexus of governmentality, biopolitics, and the pretexts of rationality itself. In an incisive passage, Neyrat elaborates this nexus, again, though this time as cause of his "legitimate madness":

> But the madness…seems legitimate: our heightened sensitivity to risk is constructed, it is not an ideological production. And it is certainly this sensibility that takes the shape in what we call the *biopolitics of catastrophe*, a form of "governmentality" that would have incorporated the so-called "precautionary principle": the biopolitics of catastrophes is a *hyper-biopolitics* which, in a mode of *warding off* or *regulating*, attempts to take charge of the totality of human life and of whose living it makes use.[79]

In a catastrophic age, biopolitics exceeds itself in its failures. A hyper-biopolitics that simultaneously "makes life," and also reproduces itself as a mechanism of security *at the very same time* as it realizes it is incapable of security provision, *at the very same time* that it begins to grapple with the limits of calculability. The biopolitical calculus, if one can still call it that, incorporates a desire while at the same time recognizing its very limits.

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[78] Neyrat 2006, 108.
[79] Ibid. Interestingly, in the book chapter developed from this earlier article, Neyrat replaces the word "idéologique" with "une illusion." See Neyrat 2008, 36.

As a result, the attendant rationality of catastrophism, the rational orientation to vulnerability in a catastrophic age – catastrophism as legitimate madness – persists as a mode of thinking that keeps the living contemporary subject on the precipice of its own finitude. And it maintains that subject of a catastrophic age as the constant object of contemporary security precisely because of calculative security's inability to formulate credible ideas about catastrophic futures. The biopolitical landscape shifts as a consequence, becoming hyper-biopolitics (as the proper name of a biopolitics of catastrophes) at precisely the same moment that it recognizes what cannot be calculated, regulated, maintained, recorded, in short, governed.[80]

III. Conclusion

In the previous chapter I showed the presence of catastrophism, how we can see it manifested across so many corridors of political life, and provided a concept – the dispositif of anticipation – could include a wide array of political and cultural knowledge production. In short, there I tried to show the presence of a widespread political rationality.

In this chapter, I tried to take that further by introducing into the explanatory arc of the dissertation other political and theoretic thinkers who had addressed similar phenomena. In approaching their work, I tried to make several points concerning catastrophism as political rationality. First, while some thinkers (Dupuy principal among them) make distinctions between everyday doomsaying and more philosophical approaches to it, on the strength of the previous chapter, we might not require a more

[80] Kindervater 2017

conceptual version of catastrophism for the concept to function powerfully. Second, following Neyrat, simply becoming aware of finitude in an age increasingly defined by the drumroll of catastrophe shows us a lot. For in the end, even some extraordinarily complex descriptions of vital security – as is the case in biopolitics – are compromised, pushed to their limits, by the prospect of the coming catastrophe.

Therefore, catastrophism, as I have deployed it here over the past two chapters should allow us a few important conclusions:

1. We can detect a general rationality surrounding contemporary life that orients people to questions that are future-oriented, and that evoke the possibility of death in ways that seems to motivate desires for political action. Therefore, it is extremely difficult to assume as many do – Aradau & Van Munster and Vázquez-Arroyo – that the turn to catastrophe in contemporary politics is "depoliticizing."

2. Instead, because the awareness of finitude, and its pleas for security and transformation persist, to the contrary, we can see precisely how *politicizing* such discourses are. Catastrophe and catastrophists exist in political states of affairs in which they are constituted and reconstituted by questions of survival – a series of questions biopolitics takes seriously, as do the agents that Adi Ophir recognizes in his formulation of catastrophization.

3. Catastrophism as rationality exposes not only a contemporary condition of political rationality, but also exposes the way that these concerns are not the sole province of apparatuses of security, governance, knowledge and power.

The politics of catastrophe, therefore, are politics obviously involving the exercise of power. But perhaps more importantly the politics of catastrophe operate through knowledge. In the contemporary scene, it might be useful to emphasize one other point: The knowledge politics of contemporary catastrophe involve knowledge creation – ideas, discourses, rhetorics, pedagogies – but especially in the moment we are in, the knowledge politics of catastrophe express *the limits* of certain kinds of knowledge. Neyrat performs welcome work showing how the incalculability of future disasters exposes holes in

biopolitics as a regime overly reliant on metrics and calculi. The emphasis on imagination at the core of disaster politics can also lead us in this direction.[81]

The dispositif in Foucault that I interpreted in the last chapter should once again aid us in understanding this phenomenon: recall "… the said as much as the unsaid." Scholars studying security institutions have produced entire literatures about how catastrophe has transformed the practices of security provision. This literature is the "said." But the unsaid, only occasionally recognized, is that such an apparatus is driven by a similar desire as literature and the cinema: To *produce* knowledge where there is a dearth of it.

The aporia of knowledge is constantly reproduced by the coming catastrophe. The coming catastrophe, as I showed in Chapter One is *ontologically* undetermined. This is not solely an ontological claim. Its lack of determination demands produced knowledge if we wish to survive it. It demands efforts to imagine it in the absence of its reality. This ontological-epistemological bind assures the expansion of modes of governance that aim to perform their duties as protectorates. But they also therefore perform an important foreclosure.

Jeremy Walker and Melinda Cooper, in a now-classic critique of neoliberalism in resilience policy, recognized that the problem of systemic vulnerability was so vast that it foreclosed upon resistance.[82] I offered a partial critique of this idea in Chapter Two, but recall it now because the security politics revolving around catastrophe seem to function in interestingly similar ways, leaving aside an important caveat for the moment. For

[81] Recall that the 9/11 report officially condemned the U.S. security apparatus for a "failure of imagination."
[82] Walker and Cooper 2011

Walker and Cooper resilience thinking tends to subsume even its critiques, rendering it more resilient – and for them, therefore, more thoroughly neoliberal – as it gains momentum.[83] What catastrophism shares, despite the reservations I espoused in Chapter Two, is a similar impenetrability to criticism. Though, in my view, the two theories resist criticism for different reasons. For Walker and Cooper, resilience adapts criticism into its framework, using resistance to it as a mechanism of growth.

Catastrophism implies an existential risk looming on the horizon. Amitav Ghosh suggests that the reason we don't act more forcefully against agents of global warming is because we are "deranged." Dupuy seems to concur in a different way – because we are unenlightened. But catastrophists will often argue that it is clear what causes climate change, or will recognize the postcolonial or imperial roots of global terrorism, or defer to the endemic structures of capitalism that makes it tend toward crises. Yet to seek structural change? There is never time.

Catastrophism and its orientation to everpresent death is not merely a misalignment of the modern psyche, or a cognitive disorder for which those who suffer its indignities require treatment. Catastrophists lean simultaneously toward their own mortality, while imagining the amelioration of their precariousness out of temporal reach.

Despite their attention paid to political authorities, I think this is what Vázquez-Arroyo and Van Munster & Aradau really mean when they argue that catastrophic speech

[83] "In its tendency to metabolize all countervailing forces and inoculate itself against critique, 'resilience thinking' cannot be challenged from within the terms of complex systems theory but must be contested, if at all, on completely different terms, by a movement of thought that is truly counter-systemic." Walker and Cooper 2011, 157.

"depoliticizes." Their arguments tend toward means far more agentic than mine. But they recognize the shrugging acceptance of vulnerability, even as they argue it differently.

Nevertheless, my view of catastrophism revolves around the idea that it expresses a litany of failures in modern governance. It expresses a vacancy of knowledge about what cannot be known. And it illuminates what it means to be alive, and potentially to survive in the contemporary age.

6

Conclusion

In August of 2015, *Rolling Stone* magazine published a frightening essay by Eric Holthaus entitled "The Point of No Return: Climate Change Nightmares Are Already Here," bearing the boorish, but poignant opening line, "Historians may look to 2015 as the year when the shit really started hitting the fan."[1] Heat waves in India and Pakistan had taken over 1,000 lives; a rainforest in the State of Washington had burst into flames; the usually temperate London had reached nearly 100 degrees Fahrenheit in the summertime; an unusually intense El Niño was underway motivating extreme water rationing on Caribbean islands.[2] Holthaus's essay argued that climate change – long a future-oriented problematic that many feared but few truly understood – had arrived, and 2015 marked the inauguration of a new idea of normal. Those who thought that climate change mitigation would be enough were wrong, never to mind those who deny its very existence. In other words, the future as speculation had crashed ashore of the present. The

[1] Holthaus 2015
[2] ibid

catastrophe to come became the present itself. The essay was published one month shy of the ten-year anniversary of Hurricane Katrina's dystopic landfall.

As I began writing this conclusion, the hillsides in California smoldered in flames again. Mobile phone videos captured the landscape ablaze, engulfed in a hellscape of fire amidst the largest recorded wildfire in California history. The Thomas Fire, 2017's answer to 2003's Cedar Fire, previously the largest in state history, consumed over 280,000 acres in less than a month.[3] Images captured automobiles wending their way through the curves of the 405 as an inferno carbonized the earth. Not only droughts, but counterintuitively, increased rain encouraging new small plant growth, likely exacerbated the fires,[4] leaving many to speculate even before the fire occurred that such enormous burnings were California's destiny.[5]

While making national news, after a cataclysmic year of storms, the Thomas Fire provided little more than a shake of the head for many outside of California. 2017 had already wrought a drumroll of catastrophes, surmounting $306 billion dollars in economic losses, nearly doubling the previous year's estimated $188 billion.[6] Among them were the worst hurricanes in recent memory for the United States. Hurricane Harvey hit the greater Houston, Texas area and dwelled above it for an unusual span, accumulating more than forty inches of rain in four days. 17,000 people were rescued from a diluvial inundation of water in the nation's fourth largest city. Hurricane Irma came next, rendering Bermuda and other islands temporarily uninhabitable, and some

[3] Daily Nexus: http://dailynexus.com/2017-12-24/thomas-fire-becomes-largest-wildfire-in-modern-california-history/
[4] Nuccitelli 2017
[5] Yoon, et al. 2015, 8; See also, earlier, Miller and Schlegel 2006
[6] Swiss Re 2017

seemingly permanently. Florida, in anticipation of suffering Irma's direct impact, evacuated 7 million people, leaving most south Florida gas stations completely dry of petrol.[7] Hurricane Maria formed on the heels of Irma, pounding Caribbean islands again only days later, decimating Puerto Rico perhaps most gravely. Now, already in December, with three months separating the storm from today, the island remains without electricity in 65% of its territory.

It is well known that often catastrophes do not affect victims equally, but when comparing Puerto Rico to Houston and Florida, a stark difference becomes visible. Even within empires, devastation is not understood and therefore addressed equally. Take for example Donald Trump, the American President, upon his visit to Puerto Rico in the aftermath of Maria:

> If you look at the – every death is a horror. But if you look at *a real catastrophe* like Katrina, and you look at the tremendous hundreds and hundreds and hundreds of people that died, and you look at what happened here with, really, a storm that was just totally overpowering – nobody has ever seen anything like this. What is your death count, as of this moment – 17?[8]

It is one thing to compare one event to another. Even to compare data in a manner tone deaf and cruel. But Trump's comments reveal also an intrinsic concern – or lack thereof – for some over others. Consider the construction of the sentence preceding what I quoted above, wherein Trump bloviated: "I hate to tell you, Puerto Rico, but you've thrown our budget a little out of whack because we've spent a lot of money on Puerto Rico, and that's fine. We've saved a lot of lives."[9]

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[7] Sutta 2017
[8] Donald Trump, remarks in Puerto Rico. Transcript, Boston Globe, October 3, 2017. my emphasis
[9] ibid

While much was covered in the course of this dissertation – perhaps at times even too much in terms of scope – much was by necessity outside of its scope or capabilities. Part of its argument avers that the stakes of loss, the magnitude of catastrophe in the future tense, can help to express what really matters to a political population. What, then, to do with the differences in response between Texas and Puerto Rico, a de facto colony of the United States? Or in a phrase that is often attributed to the novelist William Gibson, "…as I've said many times the future is already here — it's just not very evenly distributed."

Some readers of early chapter drafts rightly criticized how homogenous my theses were, asking me something like, "Okay. But catastrophe *for whom*?" This is a question that I have struggled with from the early stages to this final draft, but that I have tried to account for throughout, even while remaining committed to theorizing a broad scale phenomenon. The truth is that catastrophe, when deployed conceptually, which is to say when it is invoked politically, means many things to many people. This is especially the case in the future tense. In Trump's comments in Puerto Rico, the reader sees a man organizing a "we" – "we've spent a lot of money on Puerto Rico" – and a "you" indicating that Puerto Rico is detached critically from the "we." Catastrophe functions not only to devastate, but to separate. Vázquez-Arroyo and Ophir articulate this rhetorical politics especially well as I showed in several chapters above.

But another element of Trump's strange comments show something buried in the ignorant cruelty of his phrasing. Despite standing before survivors of a historically destructive storm, Trump recognizes a triumph of preparedness. Viewed sympathetically

(despite being loathe to view this man's comments sympathetically), the president meant in his comparison between Katrina and Puerto Rico something counterintuitive. Revisiting the most controversial comment – "But if you look at *a real catastrophe* like Katrina, and you look at the tremendous hundreds and hundreds and hundreds of people that died, and you look at what happened here with, really, a storm that was just totally overpowering – nobody has ever seen anything like this. What is your death count, as of this moment – 17?" Trump doesn't mean that the storm wasn't significant, or even that it was less significant. His comparison betrays a triumph of the logic of preparedness. Maria was "just totally overpowering – nobody has ever seen anything like this…" yet successes in preparedness and response limited fatalities to, he believed, a "death count, as of this moment – 17?"

Trump's comments should not be viewed as anything other than vulgar. Yet they also express a false confidence in the politics of all-hazards preparedness. At the time of his visit on October 3rd, unofficial death tolls surpassed 500, despite as of this writing the official death toll claiming 64 lives. As of early-December the *New York Times* reports more than 1,000 deaths over normal death rates in an average year, counted since the advent of the storm.[10] Even this back and forth over death tolls seems a semantically trivial argumentative path given the ongoing catastrophe of a territory largely without power, with thousands in desperate need of food, potable water, and medicine. Yet the data points – the political argument – of fewer lives lost heralds an implicit success story that unlike Katrina, this time *we* knew what to do. It bespeaks a politics of security that distills suffering into costs manageable for some, or as Vázquez-Arroyo or Ophir might

[10] Robles, et al. 2017

put it, a tolerable loss for those whose lives have been rendered tolerably catastrophic for others.[11]

Yet part of the work of this dissertation endeavored to show not only the cruelty of such politics, but also the rationalities that underwrite such logics. Excellent work has been published – and discussed exhaustively in preceding chapters – that focuses on the ravages of how abusive and dehumanizing politics of preparedness can be. I tried to show how the element of rationality or common sense comes to render it commonplace. For many scholars, the focus on disasters – past or future – illustrates a shift among political elites and experts. As a result, the "politics of catastrophes" focuses for these authors on the ways that the question of catastrophe transformed political decision-making, the exercise of power over others, and the vexing problems that temporality impose upon the provision of security. My efforts have been to supplement those works with a further-reaching attempt that tried to compose a theory capable of showing the various attempts and failures, as reflective of culturo-political production, forming a rationality that gave birth to a future-oriented politics of human survival; rather than imagining the decisions by political elites affecting cultural and political life as passive subjects.

This dissertation therefore argued that a detectable political rationality exists in contemporary political culture. Calling this rationality "catastrophism" allowed distinctions to be drawn from other theories similar in nature, while remaining animated by the seeming ever-presence of catastrophe in everyday political life. Politics of human survival concern themselves with events that have not yet occurred – and those politics are not limited to political elites and experts, but suffuse contemporary culture, and are

[11] See Ophir 2010; Vázquez-Arroyo 2012 and 2013.

reproduced by that culture. This means that "the future," or more precisely, "as yet undetermined events," preoccupy theories of human survival more than the coercive actions of states, balances of power, security dilemmas, etc. – as most frequently explained by professional scholars in security studies. It also means that the concept of the coming catastrophe organizes contemporary political life as much as it does the questions asked in the course of security provision.

As I showed in the earliest chapters above, future-oriented security strategies – perceived necessities of foresight – frequently ended in failure. Even when deemed successful, as in the strategic capacity to avoid nuclear war, new techniques of governance as well as strategic reason were created. The strange result? The field of what was thought to be catastrophic grew as the perception of success expanded; likewise, as the field of disastrous phenomena became more inclusive – synthesizing so-called "natural" and "manmade" (moral) catastrophes – the notion that covering all security bases seemed less possible. And so both the perception of *what* was catastrophic grew concomitantly with the range of techniques meant to cope with living in what was now understood to be an overwhelmingly catastrophic age.

The growth of the field of catastrophic events can be accounted for by several measures. The category of what could be catastrophic was enhanced by the prospect of nuclear war to the extent that future catastrophes could now be imagined as previously unimaginable, and potentially annihilative scales. And the category of catastrophe grew to encompass conventional threats to life – war (especially nuclear war) – but also a wider range of events spanning "natural" and moral disasters. Statistically speaking, each

of these sorts of events is highly improbable. But as securitized societies expanded their foci to attempt to imagine more and more kinds of mass casualty events, the idea of "the coming catastrophe" ensconced an increasing number of potential events. Groundwork was laid to provide shelter against unknown storms; and practical theories of survival were undertaken to account for the new statistical probability that security against their new sense of inevitability was scarce at best, impossible at worst. As the real abstraction of the coming catastrophe gained material importance for the prospect of securing human populations, and the category continued to encompass more types of events, the singularly highly improbable catastrophe – now abstracted – became the altogether probable coming catastrophe.[12]

Many of these components of this argument have been studied in fragments by scholars of security studies, but few if any have succeeded in showing the relationship between the growing field of "uncertain" future events and shifts in the way that such threats are treated as existential in nature – never to mention their cultural political affects or effects, nor their seemingly autocatalytic causality. Further, a disciplinary discrepancy exists where scholars of security studies (usually under the larger umbrella of international relations) tend to study the shifts among security provisions and experts, while political theorists and philosophers tend to study the shifts in meaning and power surrounding catastrophic politics. But now, in the contemporary moment, it seems less fruitful than ever to hold the phenomena of security and meaning-making separate – especially as they fuse to inform one another on the subject of existential persistence.

[12] See Chapters 4 & 5 above; on "real abstraction," see Toscano 2008.

It should not go unsaid that catastrophism, as a rationality merging questions of survival and meaning, carries with it its own measures of preemption. While motivating future-oriented policies and rationalities meant to foreclose on disastrous futures, it also produces and reproduces urgencies that claim protection paramount for survival against the idea of imminent disaster.[13] Yet this miasmic sense of urgency so often springing from catastrophic rhetoric also forecloses on critique – one might even say that catastrophism *preempts* structural critique – in ways that prioritize surviving what I have already shown is an imaginary construction (the coming catastrophe) over the criticism of its most noxious causes in empire and capital.[14] Theorists like Ophir and Vázquez-Arroyo know this all too well.[15] But they often lean too heavily on the agency of political elites, with the result that it is possible they themselves reproduce a certain logic of catastrophism. In what I have developed above, the concept of catastrophism ought be viewed as a meaningful symptom of political culture's inability to imagine other modes of politics more capable of fostering both survival and a politics of the common, which might – difficultly, but vitally – restructure survival within the greater context of the web of life.[16]

This dissertation showed the possibility of a project that re-introduce the phenomena of human survival to political theory; and likewise, security studies needs to take account for shifting meanings in discourses of human survival. It is clear from this study that the future threat of catastrophe preoccupies thinking about human survival at

[13] See Vázquez-Arroyo 2013, 745, as well as my critical reading in Chapter 4 above.
[14] In a different register, but still a way that will inform this line of argument, see Walker and Cooper 2011.
[15] op cit.
[16] Moore 2015

many levels of the political spectrum – from official institutions to literary imaginaries – and this is a change that should not be overlooked. In fact, in an age of "terror," of "climate change," of "crisis," and so on, it might be the case that the projects of theory and security have merged in an age of catastrophe, where to carry out studies of political and cultural society, one must engage with its deepest existential concerns. And to carry out research in security, one must begin with cultural production. This dissertation is one such effort to bridge that important gap, one held apart seemingly more so by academic convention than by its politico-cultural object of concern.

— Works Cited —

9/11 Commission. 2004. *Final Report of the National Commission on Terrorist Attacks upon the United States*. Washington, D.C.: National Commission on Terrorist Attacks.

Adey, Peter and Anderson, Ben. 2012. "Anticipating Emergencies: Technologies of Preparedness and the Matter of Security." *Security Dialogue* 43(2): 99-117.

Adey, Peter and Anderson, Ben. 2011. "Anticipation, Materiality, Event: The Icelandic Ash Cloud Disruption and the Security of Mobility". *Mobilities* 6: 11-20.

Adger, W. Neil. 2006. "Vulnerability." *Global Environmental Change* 16: 268-81.

Agamben, Giorgio. 1998. *Homo Sacer: Sovereign Power and Bare Life*. Palo Alto: Stanford University Press.

Agamben, Giorgio. 2005. *State of Exception*. Chicago: University of Chicago Press.

Agamben, Giorgio. 2007. "Time and History: A Critique of the Instant and the Continuum," in *Infancy and History: On the Destruction of Experience*. New York: Verso.

Agamben, G. 2009. *What is an Apparatus? And other essays.* Palo Alto: Stanford University Press.

Ager, Derek. 1993. *The New Catastrophism: The importance of the rare event in geological history*. New York: Cambridge University Press.

Ahuja, Neel. 2009. "Postcolonial Critique in a Multispecies World." *PMLA* 124(2): 556 63.

Alderson, David, Brown, Gerald, and W. Matthew Carlyle. 2015. "Operational Models of Infrastructure Resilience." *Risk Analysis* 35(4): 562-586.

Alexander, David. 2010. "Bioterrorism and pandemics: a new world order of civil defence". In A. Trufanov, A. Rossodivita and M. Guidotti (eds) Pandemics and Bioterrorism: Transdisciplinary Information Sharing for Decision-Making Against Biological Threats. NATO Science for Peace and Security, Series E: Human and Societal Dynamics Vol. 62. IOS Press, Amsterdam: 105-113.

Alvarez, Luis, and Walter Alvarez, et. al. 1980. "Extraterrestrial cause for the Cretaceous Tertiary extinction". *Science*. 208(4448): 1095–1108

Amin, Samir. 2005. "Empire and Multitude." *Monthly Review* 57(6).

Amoore, Louise. 2013. *The Politics of Possibility: Risk and Security Beyond Probability*. Durham: Duke University Press.

Amoore, Luoise, and de Goede, Marieke. 2008. *Risk and the War on Terror*. New York: Routledge.

Anderson, Ben. 2010a. "Security and the Future: Anticipating the event of terror". Geoforum 41: 227-235.

Anderson, Ben. 2010b. "Preemption, Precaution, Preparedness: Anticipatory Action and Future Geographies". Progress in Human Geography 34: 777-798.

Anderson, Ben. 2015. "What Kind of Thing is Resilience?" *Politics* 35(1) 60-66.

Anderson, Benedict. 1991. *Imagined Communities: Reflections on the Origins and Spread of Nationalism*. New York: Verso.

Aradau, Claudia. 2014. "The Promise of Security: Resilience, Surprise and Epistemic Politics." *Resilience: International Practices, Policies and Discourses* 2(2): 73 87.
Aradau, Claudia and van Munster, Rens. 2007. "Governing Terror Through Risk: Taking Precautions, (Un)Knowing the Future." *European Journal of International Relations* 13(1): 89-115.
Aradau, Claudia and van Munster, Rens. 2008. "Taming the Future: the *dispositif* of risk in the war on terror." In *Risk and the War on Terror*. Louise Amoore and Marieke de Goede, eds. New York: Routledge.
Aradau, Claudia and Van Munster, Rens. 2011. *Politics of Catastrophe: Genealogies of the Unknown.* New York: Routledge.
Aradau, Claudia, Lobo-Guerrero, Luis, and Rens Van Munster. 2008. "Security, Technologies of Risk, and the Political: Guest Editor's Introduction." *Security Dialogue* 39(2-3): 147-154.
Aravamudan, Srinivas. 2012. "Surpassing the North: Can the Antipodean Avantgarde Trump Postcolonial Belatedness?" Theorizing the Contemporary. *Cultural Anthropology* website*,* February 25, 2012: https://culanth.org/fieldsights/270 surpassing-the-north-canthe-antipodean-avantgarde-trump-postcolonial belatedness
Arendt, Hannah. 1998. *The Human Condition*. Chicago: University of Chicago Press.
Arnold, Matthew. 1993. *Culture and Anarchy and Other Writings*. S. Collini, ed. New York: Cambridge University Press.
Arvan, Marcus. 2014. "Justice as Fairness in a Broken World." *Philosophy and Public Issues* 4(2): 95-124.
Asayama, Shinichiro. 2016. "Catastrophism toward 'opening up' or 'closing down'? Going beyond the apocalyptic future and geoengineering." *Current Sociology* 63(1): 89-93.
Atwood, M. 2003. *Oryx and Crake*. New York: Anchor Books.
Azoulay, Ariella. 2008. *The Civil Contract of Photography*. New York: Zone Books.
Azoulay, Ariella. 2015. *Civil Imagination: A Political Ontology of Photography*. New York: Verso.
Baert, Patrick. 1991. "Unintended Consequences: A Typology and Examples." *International Sociology* 6(2): 201-210.
Bain, William. 2006. *The Empire of Security*. New York: Routledge.
Barkawi, Tarak and Mark Laffey. 2002. "Retrieving the Imperial: Empire and International Relations." *Millennium: Journal of International Relations* 31(1)109-127.
Barnett, Michael and Raymond Duvall. 2005. "Power in International Politics." *International Organization* 59(1): 39-75.
Barry, Brian. 1978. "Circumstances of Justice and Future Generations." In *Obligations to Future Generations*. Sikora, R. and Barry, B. Philadelphia: White Horse Press.
Bauman, Zygmunt. 2009. "Seeking in Modern Athens an Answer to the Ancient Jerusalem Question." *Theory, Culture & Society* 26(1): 71-91.

Beck, Ulrich. 1986. *Risikogesellschaft. Auf dem Weg in eine andere Moderne*. Frankfurt A.M.: Suhrkamp.
Beck, Ulrich. 1992. *The Risk Society: Towards a New Modernity*. Thousand Oaks: SAGE.
Beck, Ulrich. 2016a. "Emancipatory Catastrophism: What does it mean to climate change and risk society?" *Current Sociology* 63(1): 75-88.
Beck, Ulrich. 2016. "Author's Reply." *Current Sociology* 63(1): 121-125.
Bergthaller, Hannes. 2010. "Housebreaking the Human Animal: Humanism and the Problem of Sustainability in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*." *English Studies* 91(7): 728-743.
Bernstein, Peter. 1996. *Against the Gods: The Remarkable Story of Risk*. New York: Wiley & Sons.
Best, Jacqueline. 2008. "Ambiguity, Uncertainty, and Risk: Rethinking Indeterminacy." *International Political Sociology* 2: 355-374.
Bigo, Didier. 2004. "Identifier, categoriser et controller: Police et logiques pro- actives', in Laurent Bonelli and Gilles Sainati (eds) *La Machine à punir: pratiques et discourse sécuritaires*. Paris: L'Esprit frappeur.
Blackstone, Erwin, Buck, Andrew, and Simon Hakim. 2007. "The Economics of Emergency Response." *Policy Sciences* 40(4): 313-334.
Bonneuil and Fressoz. 2016. *The Shock of the Anthropocene*. New York: Verso.
Bourbeau, Philippe. 2013. "Resiliencism: Premises and Promises in Securitisation Research." *Resilience: International Practices, Policies and Discourses* 1(1): 3 17.
Brantlinger, Patrick. 2013. *Dark Vanishings: Discourse on the Extinction of Primitive Races*. Ithica: Cornell University Press.
Braun, Bruce. 2014. "A New Urban Dispositif? Governing Life in an Age of Climate Crisis," *Environment and Planning D: Society and Space* 32(1): 49-64.
Brown, Wendy. 2003. "Neo-Liberalism and the End of Liberal Democracy." *Theory & Event* 7(1).
Brown, Wendy. 2006a. "American Nightmare: Neoliberalism, Neoconservatism, and De Democratization." *Political Theory* 34(6): 690-714.
Brown, Wendy. 2006b. *Regulating Aversion: Tolerance in the Age of Identity and Empire*. Princeton: Princeton University Press.
Brown, Wendy. 2015. *Undoing the Demos: Neoliberalism's Stealth Revolution*. New York: Zone Books.
Buckland, William. 1836. *Geology and Minerality Considered with Reference to Natural Theology*. London: W. Pickering.
Bullock, Jane, et al. 2009. *Introduction to Homeland Security: Principles of All-Hazards Response*. Boston: Elsevier
Burke, Anthony. 2007. *Beyond Security, Ethics and Violence: War Against the Other.* New York: Routledge.
Burns, Lawrence. 2001. "Derrida and the Promise of Community." *Philosophy & Social Criticism* 27(6): 43-53.
Bussolini, Jeffrey. 2010. "What is a Dispositive?" *Foucault Studies* 10: 87-107.

Buzan, Barry. 1983. *People, States, and Fear: The National Security Problem in International Relations*. Chapel Hill: University of North Carolina Press.
Buzan, Barry. 1991. *People, States, and Fear: An Agenda for International Security Studies in the Post-Cold War Era*. London: Harvester Wheatsheaf.
Buzan, Barry. 1997. "Rethinking Security After the Cold War." *Cooperation & Conflict* 32(1): 5-28.
Buzan, Barry, Waever, Ole, and Jaap de Wilde. 1998. *Security: A New Framework for Analysis*. Boulder, CO: Lynne Rienner.
Campbell, David. 1992. *Writing Security: United States Foreign Policy and the Politics of Identity*. New York: Manchester University Press.
Casarino, Cesare. 2002. *Modernity at Sea: Marx, Melville, Conrad in Crisis.* Minneapolis: University of Minnesota Press.
Casarino, Cesare. 2008a. "Surplus Common," in Casarino, C. and Negri, A. *In Praise of the Common*. Minneapolis: University of Minnesota Press.
Césaire, Aimé. 2000. *Discourse on Colonialism*. New York: Monthly Review Press.
Casarino, Cesare. 2008b. "Time Matters," in Casarino, C. and Negri, A. *In Praise of the Common*. Minneapolis: University of Minnesota Press.
Chakrabarty, Dipesh. 2012. "Postcolonial Studies and the Challenge of Climate Change." *New Literary History* 43(1): 1-18.
Chakrabarty, Dipesh. 2009. "The Climate of History: Four Theses." *Critical Inquiry* 35.
Chakrabarty, Dipesh. 2007. *Provincializing Europe: Postcolonial Thought and Historical Difference*. Princeton: Princeton University Press.
Chandler, David. 2012. "Resilience and Human Security: The Post-Interventionist Paradigm." *Security Dialogue* 43(3): 213-29.
Chandler, David. 2013. "International Statebuilding and the Ideology of Resilience." *Politics* 33(4): 276-86.
Chandler, David. 2014. *Resilience: The Governance of Complexity*. New York: Routledge.
Chandler, David and Julian Reid. 2016. *The Neoliberal Subject: Resilience, Adaptation and Vulnerability*. New York: Rowman & Littlefield.
Chappell, Timothy. 2014. "The Future-Person Standpoint." *Philosophy and Public Issues* 4(2): 29-46.
Clarke, Susan, and Chenowith, Erica. 2006. "The Politics of Vulnerability: Constructing Local Performance Regimes for Homeland Security." *Review of Policy Research* 23(1): 95-114.
Coaffee, Joan. 2007. *Terrorism, Risk, and the Global City: Towards Urban Resilience*. New York: Routledge.
Coaffee, Joan. 2008. "Risk, Resilience, and Environmentally Sustainable Cities." *Energy Policy* 36(12): 4633-38.
Coaffee, Joan and Peter Rogers. 2008. "Rebordering the City for New Security Challenges: From Counter-terrorism to Community Resilience" *Space &* 12(1): 101-18.

Coaffee, Joan and David Murakami Wood. 2006. "Security is Coming Home: Rethinking Scale and Constructing Resilience in the Global Urban Response to Terrorist Risk." *International Relations* 20(4): 503-517.
Coker, Christopher. 2009. *War in an Age of Risk*. Cambridge: Polity Press.
Collier, Stephen. 2008. "Enacting Catastrophe: Preparedness, Insurance, Budgetary Rationalization." *Economy and Society* 37(2): 224-250.
Collier, Stephen and Lakoff, Andrew. 2008a. "Distributed Preparedness: The Spatial Logic of Domestic Security in the United States." *Environment and Planning D: Society and Space* 26: 7-28.
Collier, Stephen and Lakoff, Andrew. 2008b. "The Problem of Securing Health." In *Biosecurity Interventions: Global Health & Security in Question*. Lakoff and Collier, eds. New York: Columbia University Press.
Comaroff, Jean and John Comaroff. 2012a. *Theory from the South: Or, How Euro America is Evolving Toward Africa*. New York: Routledge.
Comaroff, Jean and John Comaroff. 2012b. "Theory from the Global South: A Rejoinder." Theorizing the Contemporary. *Cultural Anthropology* website, February 25, 2012: https://culanth.org/fieldsights/273-theory-from-the-south-a*rejoinder*
Cooke, Grayson. 2006. "Technics and the Human at Zero-Hour: Margaret Atwood's *Oryx and Crake*." *Studies in Canadian Literature/Études en literature canadienne* 31(2).
Corry, Olaf. 2012. "Securitisation and 'Riskification': Second-order Security and the Politics of Climate Change." *Journal of International Studies* 40(2): 235-258.
Corry, Olaf. 2013. *Constructing the Global Polity: Theory, Discourse, and Governance.* New York: Palgrave.
Corry, Olaf. 2014. "From Defense to Resilience: Environmental Security Beyond Neo liberalism." *International Political Sociology* 8(3): 256-274.
Corry, Olaf and Dan Jørgensen. 2015. "Beyond 'deniers' and 'believers': Towards a map of the politics of climate change." *Global Environmental Change* 32(May): 165 174.
Dalby, Simon. 2007. "Anthropocene Geopolitics: Globalisation, Empire, Environment and Critique." *Geography Compass* 1(1): 103-118.
Davies, Heather and Plotkin, Martha, et al. n.d. "Protecting Your Community From Terrorism: The Strategies for Local Law Enforcement Series; Vol. 5: Partnerships to Promote Homeland Security," *Police Executive Research Forum*.
Davies, Jeremy. 2016. *The Birth of the Anthropocene*. Berkeley: University of California Press.
Davis, David. 2007. *Ignoring the Apocalypse: Why Planning to Prevent Environmental Catastrophe Goes Astray*. Westport, CT: Praeger.
Davis, Mike. 2003. *Dead Cities and Other Tales*. New York: New Press.
Davis, Tracy. 2007. *Stages of Emergency: Cold War Nuclear Civil Defense*. Durham: Duke UP.
Dawson, Ashley. 2016. *Extinction: A Radical History*. New York: OR Books.
Dean, Mitchell. 1998. "Risk, Calculable and Incalculable." *Soziale Welt* 49(1): 25-42.

Dean, Mitchell and Hindess, Barry. 1998. “Introduction: Government, Liberalism, Society.” In Mitchell Dean and Barry Hindess (Eds.), *Governing Australia: Studies in Contemporary Rationalities of Government*. New York: Cambridge University Press.
de Goede, Marieke. 2008. “Beyond Risk: premediation and the post 9/11 security imagination.” *Security Dialogue* 39: 155-176.
de Goede, Marieke. 2012. *Speculative Security: The Politics of Pursuing Terrorist Monies.* Minneapolis: University of Minnesota Press.
de Goede, Marieke, Randalls, Samuel. 2009. “Precaution, Preemption: Arts and Technologies of the Actionable Future.” *Environment and Planning D: Society and Space* 27: 859-878.
Deleuze, Gilles. 2006. *Two Regimes of Madness: Texts and Interviews 1975-1995.* Ed. David Lapoujade. New York: Semiotext(e).
Deleuze, Gilles and Félix Guattari. 1987. *A Thousand Plateaus*. Minneapolis: University of Minnesota Press.
Derrida, Jacques. 1984. “No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives.” *Diacritics* 14(2): 20-31.
Derrida, Jacques. 1987. “No Apocalypse, Not Now: à toute vitesse, sept missives, sept missiles,” in *Psyche: Inventions de l’autre*. Paris: Galilée, 363-86.
Derrida, Jacques. 2007. “A certain impossible possibility of saying the event.” *Critical Inquiry*33(2): 441-461.
Descartes, René. 1998. *Discourse on Method and Meditations on First Philosophy*. Indianapolis: Hackett.
DHS Analytic Red Cell Program. 2003. “How Terrorists Might Exploit a Hurricane.” Information Analysis and Infrastructure Protection, Department of Homeland Security, United States Government.
DHS Analytic Red Cell Program. 2004. “How Terrorists Might Use a ‘Dirty Bomb’ Against the Homeland.” Information Analysis and Infrastructure Protection, Department of Homeland Security, United States Government.
DHS Analytic Red Cell Program. 2005. “Post-London Outside Expert View: Thinking Beyond Mass Transit For Next Homeland Attack.” Information Analysis and Infrastructure Protection, Department of Homeland Security, United States Government.
DHS Analytic Red Cell Program. 2006. “Three Potential Scenarios for Weaponizing Avian Influenza.” Information Analysis and Infrastructure Protection, Department of Homeland Security, United States Government.
Dick, Kirby and Amy Ziering Kofman. 2002. *Derrida*. Zeitgeist Films.
Dillon, Michael. 2007. “Governing through Contingency: The security of biopolitical governance”. *Political Geography* 26: 41-47.
Dillon, Michael. 2008. “Governing Terror: The State of Emergency of Biopolitical Emergence.” *International Political Sociology* 1: 7-28.
Dillon, Michael. 2015. *Biopolitics of Security: A Political Analytic of Finitude*. New York: Routledge.

DiMarco, Danette. 2005. "Paradice Lost, Paradise Regained: homo faber and the Makings of a New Beginning in Oryx and Crake." *Papers on Language and Literature* 41(2): 170-195.
Duffield, Mark. 2011. "Total War as Environmental Terror: Linking Liberalism, Resilience, and the Bunker." *South Atlantic Quarterly* 110(3): 757-769.
Duffield, Mark. 2012. "Challenging Environments: Danger, Resilience, and the Aid Industry." *Security Dialogue* 43(5): 475-92.
Duffield, Mark. 2015. "Resilience and Abandonment." *Resilience: International Practices, Policies and Discourses* 3(2): 137-40.
Dupuy, Jean-Pierre. 2004. *Pour Un Catastrophisme Écairé: Quand l'impossible est certain.* Paris: Seuil.
Dupuy, Jean-Pierre. 2005. *Petite Métaphysique des Tsunamis*. Paris: Seuil.
Dupuy, Jean-Pierre. 2007. "The Precautionary Principle and Enlightened Doomsaying: Rational Choice before the Apocalypse," *Occasion: Interdisciplinary Studies in the Humanities* 1(1): 1-13.
Dupuy, Jean-Pierre. 2013. *The Mark of the Sacred*. Palo Alto: Stanford University Press.
Dupuy, Jean-Pierre and Grinbaum, Alexei. 2005. "Living with uncertainty: from the precautionary principle to the methodology of ongoing normative assessment." *Geoscience* 337: 457-474.
Dussel, Enrique. 1993. "Eurocentrism and Modernity." *boundary 2*. 20(3): 65-76.
Dynes, Russel. 1999. "The Dialogue Between Voltaire And Rousseau On The Lisbon Earthquake: The Emergence Of A Social Science View." Disaster Research Center, University of Delaware.
Eagleton, Terry. 2003. *Sweet Violence: The Idea of the Tragic*. Malden, MA: Wiley Blackwell.
Epicurus. 1994. *The Epicurus Reader*. Indianapolis: Hackett.
Esposito, Roberto. 2012. "The *Dispositif* of the Person," *Law, Culture, and the Humanities* 8(1): 17-30.
Evans, Brad, and Reid, Julian. 2013. "Dangerously Exposed: The Life ad Death of the Resilient Subject." *Resilience* 1(2): 83-98.
Evans, Brad and Reid, Julian. 2015. *Resilient Life: The Art of Living Dangerously*. Malden, MA: Polity.
Evans, Michael. 2004. *Karl Marx: Political Thinkers, Volume III*. New York: Routledge
Ewald, F. 2002. "The Return of Descartes' malicious demon: an outline of a philosophy of precaution" in T. Baker & J. Simon (Eds.), *Embracing Risk: The changing culture of insurance and responsibility*. Chicago: University of Chicago Press.
Ewald, François. 1991. "Insurance and Risk." In *The Foucault Effect: Studies in Governmentality*. Burchell, Gordon and Miller, eds. Chicago: University of Chicago Press.
Fanon, Franz. 1994. *The Wretched of the Earth*. New York: Grove Press.
Federal Emergency Management Agency (FEMA). 2004. "Are You Ready? An In-Depth Guide to Citizen Preparedness (IS 22)." Washington, D.C.: Federal Emergency Management Agency.

Ferguson, James. 2012. "Theory from the Comaroffs, or How to Know the World Up, Down, Backwards and Forwards." Theorizing the Contemporary. *Cultural Anthropology* website, February 25, 2012: https://culanth.org/fieldsights/271-theory-from-the comaroffs-or how-to-know-the-world-up-down-backwards-and-forwards

Fiorill, Joe. 2006. "Hurricane Holds Lessons for Terrorism, Nagin Says." *Global Security Newswire.* Accessed: http://www.nti.org/gsn/article/hurricane-holds-lessons-for terrorism-nagin-says/

Flynn, Stephen. 2000. "Beyond Border Control," *Foreign Affairs* 79(6): 57-68.

Flynn, Stephen. 2004. *America the Vulnerable: How Our Government is Failing to Protect Us from Terrorism*. New York: Harper Collins in cooperation with The Council on Foreign Relations.

Flynn, Stephen. 2007. *The Edge of Disaster: Rebuilding a Resilient Nation*. New York: Random House in cooperation with The Council on Foreign Relations.

Foucault, Michel. 1980. *Power/Knowledge: Selected Writings and Interviews 1972-1977.* Ed. Colin Gordon. New York: Pantheon.

Foucault, Michel. 1982. *The Archaeology of Knowledge: And the Discourse on Language*. New York: Vintage.

Foucault, Michel. 1990. *History of Sexuality, Volume One*. New York: Palgrave.

Foucault, Michel. 1994. *The Order of Things: An Archaeology of the Human Sciences*. New York: Vintage.

Foucault, Michel. 1995. *Discipline and Punish*. Alan Sheridan, trans. New York: Vintage.

Foucault, Michel. 2003. "*Society Must Be Defended*." New York: Picador.

Foucault, Michel. 2004. *Abnormal*. New York: Picador.

Foucault, Michel. 2008. *The Birth of Biopolitics*. New York: Picador.

Foucault, Michel. 2009. *Security, Territory, Population*. New York: Picador.

Fuggle, Sophie. 2014. "To Have Done With the End-Times: Turning the Apocalypse into a Nonevent." in *Apocalyptic Discourse in Contemporary Culture: Post-Millennial Perspectives*, Germana and Mousoutzanis, eds.

Fukuyama, Francis. 1992. *The End of History and the Last Man*. New York: Free Press.

Galison, Peter. 2001. "War against the Center." *Grey Room* 04: 7-33

Garcia, Mary Lynn. 2005. *Vulnerability Management of Physical Protection Systems*. Burlington, MA: Butterworth-Heinemann.

Ghamari-Tabrizi, Sharon. 2000. "Simulating the Unthinkable. Gaming Future War in the 1950s and 1960s". *Social Studies of Science* 30(2): 163-223.

Ghamari-Tabrizi, Sharon. 2005. *The Worlds of Herman Kahn: The Intuitive Science of Thermonuclear War*. Cambridge: Harvard University Press.

Giroux, Henry. 2006. *Stormy Weather: Katrina and the Politics of Disposibility*. New York: Routledge.

Ghosh, Amitav. 2016. *The Great Derangement: Climate Change and the Unthinkable*. Chicago: University of Chicago Press.

Grove, Kevin. 2012. "Preempting the Next Disaster: Catastrophe Insurance and the Financialization of Disaster Management." *Security Dialogue* 43(2): 139-155.

Grove, Kevin. 2013. "On Resilience Politics: From Transformation to Subversion." *Resilience: International Practices, Policies and Discourses* 1(2): 146-153.

Grove, Kevin. 2014a. "Biopolitics and Adaptation: Governing Socio-Ecological Contingency Through Climate Change and Disaster Studies." *Geography Compass* 8(3): 198-210.
Grove, Kevin. 2014b. "Adaptation Machines and the Parasitic Politics of Life in Jamaican Disaster Resilience." *Antipode* 46(3): 611-628.
Gunderson, Lance. 2000. "Ecological Resilience: In Theory and Application." *Annual Review of Ecology and Systematics* 31: 425-493.
Gunderson, Lance and C.S. Holling. 2002 *Panarchy: Understanding Transformations in Humanand Natural Systems*. Washington, D.C.: Island Press.
Gusterson, Hugh. 2004. *People of the Bomb: Portraits of America's Nuclear Complex*. Minneapolis: University of Minnesota Press.
Haines, Christian. 2012. *A desire called America: biopolitics and utopian forms of Life in American literature*. PhD Dissertation. University of Minnesota. Minneapolis: Digital Conservancy.
Hardt, Michael and Antonio Negri. 2000. *Empire*. Cambridge: Harvard University Press.
Hayek, Friedrich. 1989. "The Pretense of Knowledge." *The American Economic Review* 79(6): 3-7.
Hansen, Lene. 2000. "The Little Mermaid's Silent Security Dilemma and the Absence of Genderin the Copenhagen School." *Millennium: Journal of International Studies* 29(2): 285-306.
Hanson, James. 2009. *Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity*. New York: Bloomsbury.
Heisenberg, Werner. 1930. *Die physikalischen Prinzipien der Quantentheorie.* Leipzig: Hirzel.
Hicks, Steven V. and Rosenberg, Alan. 2003. "Nietzsche and Untimeliness: The 'Philosopher of the Future' as the Figure of Disruptive Wisdom." *Nietzsche Studies* 25: 1-34.
Holm, Isak Winkel. 2012a. "The Cultural Analysis of Disaster." In *The Cultural Life of Catastrophes and Crises*, Carsten Meiner and Kristin Veel, eds. Berlin: de Gruyter GmbH, pp. 15-32.
Holm, Isak Winkel. 2012b. "The Frailty of Everything – Cormac McCarthy's *The Road* and Modern Disaster Discourse." In *The Cultural Life of Catastrophes and Crises*, Carsten Meiner and Kristin Veel, eds. Berlin: de Gruyter GmbH, pp. 233 250.
Holling, Crawford Stanley. 1973. "Resilience and Stability of Ecological Systems." *Annual Review of Ecology and Systematics* 4: 1-23.
Holling, Crawford Stanley. 1982. "Myths of Ecology and Energy." In *Perspectives on Energy: Issues, Ideas, and Environmental Dilemmas*. Ruedisili and Firebaugh, eds. New York: Oxford University Press.
Holling, Crawford Stanley and Lance H. Gunderson. 2002. "Resilience and Adaptive Cycles." In Gunderson, Lance and C.S. Holling. 2002 *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington, D.C.: Island Press.

Holthaus, Eric. 2015. “The Point of No Return: Climate Change Nightmares Are Already Here.” *Rolling Stone*. August 5, 2015.
Homer-Dixon, Thomas. 2006. *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization*. New York: Random House.
Honig, Bonnie and Lori Marso, eds. 2016. *Politics, Theory, and Film: Critical Encounters with Lars von Trier*. New York: Oxford University Press.
Horkheimer, Max. 1974. *Critique of Instrumental Reason: Lectures and Essays Since the End of WWII*, M. O'Connell, (trans.), New York: Seabury Press.
Horkheimer, Max. 2007. *Eclipse of Reason*. New York: Continuum.
Horkheimer, Max and Adorno, Theodor. 2002. *Dialectic of Enlightenment: Philosophical Fragments*, E. Jephcott, (trans.), G. Schmid Noerr, (ed.), Palo Alto, CA: Stanford University Press.
Hough, Peter. 2004. *Understanding Global Security*. New York: Routledge.
Huffer, Lynn. 2015. “Foucault’s Fossils: Life Itself and the Return to Nature in Feminist Philosophy.” *Foucault Studies* 20: 122-141.
Huggett, Richard. 1998. *Catastrophism: Asteroids, Comets, and other Dynamic Events in Earth History*. New York: Verso.
Huysmans, Jef. 1998a. “Security! What do you mean? From Concept to Thick Signifier.” *European Journal of International Relations* 4(2): 226-55.
Huysmans, Jef. 1998b. “Revisiting Copenhagen.” *European Journal of International Relations* 4(4): 479-505.
Huysmans, Jef. 2006. *The Politics of Insecurity: Fear, Migration and Asylum in the EU*. New York: Routledge.
Ingersoll, Earl. 2004. “Survival in Margaret Atwood’s Novel *Oryx and Crake*.” *Extrapolation* 45(2): 162-175.
Israel, Jonathan. 2013. *Democratic Enlightenment: Philosophy, Revolution, and Human Rights 1750-1790*. New York: Oxford University Press.
Jackson, Brian A. and Frelinger, David R. 2009. “Emerging Threats and Security Planning: How Should We Decide What Hypothetical Threats to Worry About?” Santa Monica, CA: RAND Corporation.
Jasper, David. 2004. *The Sacred Desert: Religion, Literature, Art and Culture*. Malden, MA: Wiley Blackwell.
Jameson, Fredric. 2003. “Future City,” *New Left Review* 21(May/June): 65-79.
Johnson, William B. and Hopkins, Kevin R. 1990. *The Catastrophe Ahead: AIDS and the Case for a New Public Policy*. New York: Praeger.
Jordan, Jeff. 2006. *Pascal’s Wager: Pragmatic Arguments and Belief in God*. New York: Oxford University Press.
Joseph, Jonathan. 2013. “Resilience as Embedded Neoliberalism: A Governmentality Approach.” *Resilience: International Policies, Practices and Discourses* 1(1): 38 52.
Kahn, Herman. 1960. *On Thermonuclear War*. Princeton: Princeton University Press.
Kahn, Herman. 1962a. *Thinking About the Unthinkable*. New York: Horizon Press.
Kahn, Herman. 1962b. “Wargaming” RAND, Santa Monica.

Kahn, Herman. 1985. *Thinking About the Unthinkable in the 1980s.* New York: Touchstone.
Kaplan, E. Ann. 2005. *Trauma Culture: The Politics of Terror and Loss in Media and Literature*. New Brunswick, NJ: Rutgers University Press.
Kaplan, E. Ann. 2015. *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*. New Brunswick, NJ: Rutgers University Press.
Kaplan, Fred. 1983. *The Wizards of Armageddon.* Stanford: Stanford University Press.
Kaufmann, Mareile. 2013. "Emergent Self-Organisation in Emergencies: Resilience Rationales in Interconnected Societies." *Resilience Practices, Policies and Discourses* 1(1): 53-68.
Kelly, Allan and Frank Dachille. 1953. *Target Earth: The Role of Large Meteors in Earth Science*. Carlsbad, CA.
Kessler, Oliver, and Daase, Christopher. 2008. "From Insecurity to Uncertainty: Risk and the Paradox of Security Politics." *Alternatives: Global, Local, Political* 33(2): 211-232.
Kiersey, Nicholas. 2016. "Between U.S. Imperialism and 'Empire': World Politics and the Globalization of Late Capitalist Subjectivity." In *The Ashgate Companion to Modern Theory, Modern Power, World Politics: Critical Investigations*. Scott G. Nelson and Nevzat Soguk, eds. New York: Routledge: 231-247.
Kiersey, Nicholas. 2011. "Everyday neoliberalism and the subjectivity of crisis: post political control in an era of financial turmoil." *Journal of Critical Globalization Studies* 4: 23-44.
Kiersey, Nicholas. 2009. "Neoliberal Political Economy and the Subjectivity of Crisis: Why Governmentality is Not Hollow." *Global Society* 23(4): 363-86.
Kindervater, Garnet. 2017. "Catastrophe and Catastrophic Thought." In *Biopolitical Disasters*, Jennifer L. Lawrence and Sarah Marie Wiebe, eds. New York: Routledge.
Kinsella, William J. 2005. "One Hundred Years of Nuclear Discourse: Four Master Themes and Their Implications for Environmental Communication." *The Environmental Communication Yearbook* 2: 49-72.
Klein, Richard. 2008. "Knowledge of the Future: Future Fables." *Diacritics* 38(1-2): 173 79.
Klein, Naomi. 2014. *This Changes Everything: Capitalism vs. the Climate*. New York: Simon & Schuster.
Kolbert, Elizabeth. 2015. *The Sixth Extinction: An Unnatural History*. New York: Picador.
Kordela, Kiarina. 2008. *$urplus: Spinoza, Lacan*. Albany, NY: SUNY Press.
Koselleck, Reinhart. 2002. *The Practice of Conceptual History: Timing History, Spacing Concepts*. Todd Samuel Presner, et al., trans. Palo Alto: Stanford University Press.
Kriebel, D., Tickner, J., Epstein, P., Lemons, J., Levins, R., Loechler, E. L., and Stoto, M. 2001. "The precautionary principle in environmental science." *Environmental Health Perspectives.* 109(9): 871–876.

Ku, Chung-Hao. 2006. “Of Monster and Man: Transgenics and Transgression in Margaret Atwood’s *Oryx and Crake*.” *Concentric: Literary and Cultural Studies* 32(1): 107-33.
Kurasawa, Fuyuki. 2004. “A cosmopolitanism from below: Alternative globalization and the creation of a solidarity without bounds.” *Archives of European Sociology* 45(2): 233–255.
Lakoff, Andrew. 2008a. “The Generic Biothreat, Or, How We Became Unprepared,” *Cultural Anthropology* 23(3): 399-428.
Lakoff, Andrew. 2008b. “From Population to Vital System: National Security and the Changing Object of Public Health.” In *Biosecurity Interventions: Global Health & Security in Question*. Lakoff and Collier, eds. New York: Columbia University Press.
Lakoff, Andrew. 2006. “From Disaster to Catastrophe: The Limits of Preparedness.” http://understandingkatrina.ssrc.org/Lakoff/
Lakoff, Andrew. 2007. “Preparing for the Next Emergency.” *Public Culture* 19(2): 247 271. Lakoff, Andrew, S. Collier, eds. 2008. *Biosecurity Interventions: Global Health & Security in Question*. New York: Columbia University Press.
Lazarus, Neil. 2006. "Postcolonial studies after the invasion of Iraq." *New Formations* 59.
Leaning, Jennifer and Debarati Guha-Sapir. 2013. “Natural Disasters, Armed Conflict, and Public Health.” *New England Journal of Medicine* 369: 1836-1842.
Le Guin, Ursula. 2017. *No Time To Spare: Thinking About What Matters*. New York: Houghton Mifflin.
Lilly, Sasha, David McNally, Eddie Yuen, James Davis, Doug Henwood. 2012. *Catastrophism: The Apocalyptic Politics of Collapse and Rebirth*. Oakland, CA: PM Press.
Luciano, Dana. 2015a. “Tracking Prehistory.” *J19: The Journal of Nineteenth-Century Americanists* 3(1): 173-81.
Luciano, Dana. 2015b. “The Inhuman Anthropocene.” *L.A. Review of Books*, March 22, 2015.
Luciano, Dana and Cécile Roudeau. 2015. “How the Earth Feels: A Conversation With Dana Luciano.” *Transatlantica* 1. Web: http://transatlantica.revues.org/7362
Lundborg, Tom and Nick Vaughan-Williams. 2011. “Resilience, Critical Infrastructure, and Molecular Security: The Excess of ‘Life’ in Biopolitics.” *International Political Sociology* 5: 367-383.
MacKinnon, Danny and Kate Driscoll Derickson. 2013. “From Resilience to Resourcefulness: A Critique of Resilience Policy and Activism.” *Progress in Human Geography* 37(2): 253-270.
Mbembe, Achille. 2001. *On the Postcolony*. Berkeley: University of California Press.
Mbembe, Achille. 2003. “Necropolitics.” *Public Culture* 15(1): 11-40.
Mbembe, Achille. 2017. *Critique of Black Reason*. Durham: Duke University Press.
Marcuse, Herbert. 1964. *One-Dimensional Man*. Boston: Beacon Press.
Marx, Karl. 1996. *Capital Vol. I.* in *The Collected Works of Marx and Engels*, *Volume 35*. New York: International Publishers.

Marx, Karl. 1976. *The Collected Works of Marx and Engels, 1845-1847, Volume 5*. New York: International Publishers.
Masco, Joseph. 2006. *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico*. Princeton: Princeton University Press.
Massumi, Brian. 2005. "Fear (The Spectrum Said)." *Positions* 13(1): 31-48.
Massumi, Brian. 2007. "Potential Politics and the Primacy of Preemption." *Theory & Event* 10(2).
McCarthy, Cormac. 2006. *The Road*. New York: Vintage Books.
McDermott, Rose. 2001. *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy*. Ann Arbor: University of Michigan Press.
Meiner, Carston. 2012. "The Metaphysics of Catastrophes – Voltaire's *Candide*." in *The Cultural Life of Catastrophes and Crises*, Meiner and Veel, eds. Boston: De Gruyter.
Merton, Robert. 1936. "The Unanticipated Consequences of Purposive Social Action." *The American Sociological Review* 27: 492-508.
Metzger, J. ed. 2013. *Nietzsche, Nihilism, and the Philosophy of the Future*. New York: Bloomsbury.
Miller, Joshua L. 2012. *Psychosocial Capacity Building in Response to Disaster*. New York: Columbia University Press.
Miller, Norman and Nicole Schlegel. 2006. "Climate change projected fire weather sensitivity: California Santa Ana wind occurrence." *Geophysical Research Letters* 33(15): L15711
Mintz, Jeffrey. 2004. "Homeland Security Employs Imagination: Outsiders Help Devise Possible Terrorism Plots." *The Washington Post*. June 18, 2004: http://www.washingtonpost.com/wpdyn/articles/A50534-2004Jun17.html
Mbembe, Achille. 2012. "Theory From the Antipodes: Notes on Jean & John Comaroffs' TFS." Theorizing the Contemporary. *Cultural Anthropology* website, February 25, 2012: *https://culanth.org/fieldsights/272-theory-from-the-antipodes-notes-on jean-johncomaroffs-tfs*
Moeller, Susan. 1999. *Compassion Fatigue: How the Media Sell Disease, Famine, War and Death.* New York: Routledge.
Moore, Jason. 2017. "The Capitalocene, Part I: on the nature and origins of our ecological crisis." *Journal of Peasant Studies* 44(3): 594-630.
Moore, Jason. 2015. *Capitalism and the Web of Life: Ecology and the Accumulation of Capital.* New York: Verso.
Morton, Timothy. 2013. *Hyperobjects: Philosophy and Ecology After the End of the World*. Minneapolis: University of Minnesota Press.
Mueller, John. 1994. "The Catastrophe Quota: Trouble After the Cold War." *The Journal of Conflict Resolution* 38(3): 355-375.
Mueller, John. 2010. "Assessing Measures Designed to Protect the Homeland." *The Policy Studies Journal* 38(1): 1-21.
Mueller, John and Stewart, Mark. 2011. *Terror, Security, and Money: Balancing the Risks, Benefits, and Costs of Homeland Security*. New York: Oxford University Press.

Mulgan, Tim. 2006. *Future People: A Moderate Consequentialist Account of our Obligations to Future Generations*. New York: Oxford University Press.
Mulgan, Tim. 2011. *Ethics for a Broken World: Imagining Philosophy After Catastrophe*. Montreal: McGill Queen's University Press.
Mulgan, Tim. 2014a. "A Précis to *Ethics for a Broken World*." *Philosophy and Public Issues* 4(2): 3-10.
Mulgan, Tim. 2014b. "What is Good for the Distant Future? The Challenge of Climate Change for Utilitarianism." In *God, the Good, and Utilitarianism: Perspectives on Peter Singer*. New York: Cambridge University Press.
Mulgan, Tim. 2014c. "Replies to Critics." *Philosophy and Public Issues* 4(2): 59-92.
Muller, Benjamin. 2010. *Security, Risk and the Biometric State: Governing Borders and Bodies*.New York: Routledge.
Nacos, Brigitte, Bloch-Elkon, Yaeli, and Shapiro, Robert. 2011. *Selling Fear: Counterterrorism, the Media, and Public Opinion.* Chicago: University of Chicago Press.
Nancy, Jean-Luc. 2012. *L'Équivalence des catastrophes (Après Fukushima)*. Paris: Éditions Galilée.
Nancy, Jean-Luc and Danielle Cohen-Levinas. 2015 "It's a Catastrophe! Interview with Jean Luc Nancy." In *After Fukushima: The Equivalence of Catastrophes*. Charlotte Mandell, trans. New York: Fordham University Press, pp. 53-60.
Nancy, Jean-Luc, Nishiyama, Yuji, and Yotetsu Tonaki. 2015. "Questions for Jean-Luc Nancy." In *After Fukushima: The Equivalence of Catastrophes*. Charlotte Mandell, trans. New York: Fordham University Press, pp. 45-50.
Narveson, Jan. 1978. "Future People and Us." In *Obligations to Future Generations*. Sikora, R. and Barry, B. Philadelphia: White Horse Press.
Negri, A. 1991. *Marx Beyond Marx: Lessons on the Grundrisse*. New York: Autonomedia.
Neiman, Susan. 2002. *Evil in Modern Thought: An Alternative History of Philosophy*. Princeton: Princeton University Press.
Nelson, Sara Holiday. 2014a. "Resilience and the neoliberal counter-revolution: From Ecologies of Control to Production of the Common." *Resilience: International Policies, Practices and Discourses* 2(1): 1-17.
Nelson, Sara Holiday. 2014b. "Beyond *The Limits to Growth*: Ecology and the Neoliberal Counterrevolution." *Antipode* 47(2): 461-80.
Neocleus, Mark. 2012. "'Don't Be Scared, Be Prepared': Trauma-Anxiety-Resilience." *Alternatives: Global, Local, Political* 37(3): 188-98.
Neocleus, Mark. 2013. "Resisting Resilience." *Radical Philosophy* 178: 2-7.
Neyrat, Frédéric. 2009. *Biopolitiques des Catastrophes.* Paris: Éditions MF.
Nietzsche, Friedrich. 1968. *Thus Spoke Zarathustra: A Book for All and None*. Walter Kaufmann, trans. New York: Viking Press.
Nietzsche, Friedrich. 1989. *Beyond Good and Evil: Prelude to a Philosophy of theFuture*. New York: Vintage.
Noys, Benjamin. 2010. *Persistence of the Negative: A Critique of Contemporary Continental Theory*. Edinburgh: Edinburgh University Press.

Nuccitelli, Dana. 2017. "California's Hellish Fires: A Visit from the Ghost of Christmas Future." *The Guardian*. December 11, 2017.
Obarrio, Juan. 2012. "Theory from the South." Theorizing the Contemporary. *Cultural Anthropology* website, February 24, 2012: https://culanth.org/fieldsights/268 theory from-the-south
O'Malley, Patrick. 1992. "Risk, Power and Crime Prevention." *Economy and Society* 21(3): 252–75.
O'Malley, Pat. 2003. "Governable Catastrophes." *Economy and Society* 32: 275-79.
O'Malley, Pat. 2010. "Resilient Subjects: Uncertainty, Warfare and Liberalism." *Economy and Society* 39(4): 488-509.
O'Malley, Pat. 2011. "From Risk to Resilience: Technologies of the Self in an Age of Catastrophes." *Carceral Notebooks* 7: 41-68.
Ophir, Adi. 2005. *The Order of Evils: Toward an Ontology of Morals*. Rela Mazali and Havi Carel, translators. New York: Zone Books.
Ophir, Adi. 2008. "The Politics of Catastrophization: Emergency and Exception." In *States of Emergency: The Politics of Military and Humanitarian Interventions*. Didier Fassin and Mariella Pandolfi, Eds. New York: Zone Books.
Paik, Peter. 2010. *From Utopia to Apocalypse: Science Fiction and the Politics of Catastrophe*. Minneapolis: University of Minnesota Press.
Palmer, Trevor. 2010. *Perilous Planet Earth: Catastrophes and Catastrophism through the Ages*. New York: Cambridge University Press.
Parenti, Christian. 2011. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books.
Pascal, Blaise. 1995. *Pensées and Other Writings*. New York: Oxford University Press.
Peltonen, Matti. 2004. "From Discourse to Dispositif : Michel Foucault's Two Histories," *Historical Reflections / Reflexions Historiques* 30(2): 205-219.
Perrow, Charles. 1984. *Normal Accidents: Living with High Risk Technologies*. New York: Basic Books.
Perrow, Charles. 2007. *The Next Catastrophe: Reducing Our Vulnerability to Natural, Industrial and Terrorist Disaster*. Princeton: Princeton University Press.
Perry, Ronald W. and E.L. Quarantelli (eds). 2005. *What is a Disaster? New Answers to Old Questions*. Philadelphia: Xlibris Press.
Pløger, John. 2008. "Foucault's *Dispositif* and the City," *Planning Theory* 7(1): 51-70.
Popper, Karl. 2002. *The Poverty of Historicism*. New York: Routledge.
Posner, Richard. 2003. "The End Is Near." *The New Republic*. September 22, 2003.
Posner, Richard. 2004. *Catastrophe: Risk and Response*. New York: Oxford University Press.
Povenelli, Elizabeth. 2015. "The Rhetorics of Recognition in Geontopower." *Philosophy & Rhetoric* 48(4): 428-442.
Povenelli, Elizabeth, Coleman, Mathew and Kathryn Yusoff. 2014. "Interview with Elizabeth Povenelli by Mat Coleman and Kathryn Yusoff. "*Society & Space* Blog: https://societyandspace.com/2014/03/06/interview-with-elizabeth-povinelli-with mat coleman-and-kathryn-yusoff/
Prince, Samuel Henry. 1968. *Catastrophe and Social Change*. New York: AMS Press.

Quarantelli, E.L. ed. 1998. *What is a Disaster? Perspectives on the Question*. New York: Routledge.
Quarantelli, E.L. 1966. "Organization under stress," in Brictson, ed. *Symposium on Emergency Operations*. Santa Monica: Systems Development Corporation.
Quarantelli, E.L. 1977. "Social aspects of disaster and their relevance to pre-disaster planning," *Disasters* 1: 98-107.
Quarantelli, E.L. 1985 "What is a Disaster? The need for clarification in definition and conceptualization in research," in Sowder, ed. *Disasters and Mental Health: Selected Contemporary Perspectives*,Washington DC: Us Government Printing Office.
Quarantelli, E.L. 1987a. "Disaster studies: an analysis of the social historical factors affecting the development of research in the area," *International Journal of Mass Emergencies and Disasters* 5: 285-310.
Quarantelli, E.L. 1987b. "What should we study? Questions and suggestions for researchers about the concept of disasters," *International Journal of Mass Emergencies and Disasters* 5: 7-32.
Quarantelli, E.L. 1989a. "Conceptualizing disasters from a sociological perspective," *International Journal of Mass Emergencies and Disasters* 7: 243-251.
Quarantelli, E.L. 1989b "Panel: What should we be studying?" in Quantarelli and Pelanda (eds.) *Proceedings Italy-United States Seminar: Preparations for, Responses to, and Recovery from Major Community Disasters*, Newark, DE: Disaster Research Center, University of Delaware.
Quarantelli, E.L. 1992. "The case for a generic rather than agent specific approach to disasters," *Disaster Management* 2: 191-196.
Quarantelli, E.L. 1993a. "Community crises: an exploratory comparison of the characteristics and consequences of disasters and riots," *Journal of Contingencies and Crisis Management* 1: 67-78.
Quarantelli, E.L. 1993b. "Disasters and catastrophes: their conditions in and consequences for social development," Preliminary Paper #197, Newark, DE: Disaster Research Center, University of Delaware.
Quarantelli, E.L. 2006. "Catastrophes are Different from Disasters: Some Implications for Crisis Planning and Managing Drawn from Katrina," SSRC Blog: http://understandingkatrina.ssrc.org/Quarantelli/ (Retrieved January 2012; copy in the author's possession)
Quayson, Ato. 2012. "Coevalness, Recursivity and the Feet of Lionel Messi." Theorizing the Contemporary. *Cultural Anthropology* website, February 25, 2012: https://culanth.org/fieldsights/269-coevalness-recursivity-and-the-feet-of-lionel messi
Raffnsøe, Sverre. 2008 "Qu'est-ce qu'un dispositif? L'analytique sociale de Michel Foucault," *Symposium (Canadian Journal of Continental Philosophy / Revue canadienne de philosophie continentale)*, 12(1).
Rawls, John. 1999. *A Theory of Justice, rev. ed.* Cambridge, MA: Harvard University Press.

Regier, Alexander. 2010. “Foundational Ruins: The Lisbon Earthquake and the Sublime.” in *Ruins of Modernity*, ed. Hell and Schönle. Durham: Duke University Press.
Reid, Julian. 2005. “Biopolitics of the War on Terror: a critique of the ‘return of imperialism’ thesis in international relations.” *Third World Quarterly* 26(2): 237 252.
Reid, Julian. 2009. *The Biopolitics of the War on Terror: Life Struggles, Liberal Modernity, and the Defense of Logistical Societies*. New York: Manchester University Press.
Reid, Julian. 2012. “The Disastrous and Politically Debased Subject of Resilience.” *Development Dialogue* 58: 67-81.
Reid, Julian. 2013. “Interrogating the Neoliberal Biopolitics of the Sustainable Development Resilience Nexus.” *International Political Sociology* 7(4): 353 367.
Rhodes, Richard. 2012. *The Making of the Atomic Bomb: 25th Anniversary Edition*. New York: Simon and Schuster.
Robinson, Cedric J. 1983. *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill: University of North Carolina Press.
Robles, Frances, et al. 2017. “Official Death Toll in Puerto Rico: 64. Actual Deaths May Be 1,052.” *New York Times*. Dec 9, 2017.
Rothe, Delf. 2011. “Managing Climate Risks or Risking a Managerial Climate: State, Security and Governance in the International Climate Regime.” *International Relations* 25(3): 330-345.
Rousseau, J-J. 1997. *“The Discourses” and Other Early Political Writings*. New York: Cambridge University Press.
Said, Edward. 1994. *Orientalism*. New York: Vintage.
Salter, Mark. 2008. “Imagining Numbers: Risk, Quantification, and Aviation Security.” *Security Dialogue* 39(2-3): 243-266.
Salter, Mark. 2013. “No Joking!” in *Security and Everyday Life*, Bajc and de Lint, eds. New York: Routledge.
Samaddar, Ranabir. 2015. “The Post-Colonial Burden of Resilient Life.” *Resilience: International Practices, Policies and Discourses* 3(2): 141-44.
Sanderson, Jay. 2013. “Pigoons, Rakunks and Crakers: Margaret Atwood's *Oryx and Crake* and Genetically Engineered Animals in a (Latourian) Hybrid World.” *Law & Humanities* 7(2): 218-239.
Saunders, Ben. 2014. “Democracy and Future Generations.” *Philosophy and Public Issues* 4(2): 11-28.
Scholes, Robert. 1967. *The Fabulators*. Oxford: Oxford University Press.
Scholes, Robert. 1975. *Structural Fabulation: Essay on Fiction of the Future*. South Bend: University of Notre Dame Press.
Scholes, Robert. 1979. *Fabulation & Metafiction*. Champaign: University of Illinois Press.
Schott, Robin May. 2013. “Resilience, Normativity and Vulnerability.” *Resilience: International Practices, Policies and Discourses* 1(3): 210-218.
Shapiro, Michael J. 2016. *Politics and Time*. Malden, MA: Wiley.

Shapiro, Michael J. 2013. *Studies in Transdisciplinary Method: After the Aesthetic Turn*. New York: Routledge.
Shapiro, Michael J. 2011. "The Fear *Dispositif*," *Theory & Event* 14(1)
Simon, Stephanie and Samuel Randalls. 2016. "Geography, Ontological Politics and the Resilient Future." *Dialogues in Human Geography* 6(1): 3-18.
Sjoberg, Gideon. 1962. "Disasters and Social Change." In *Man and Society in Disaster*. Baker and Chapman, eds. New York: Basic Books.
Smit, Barry and Johanna Wandel. 2006. "Adaptation, Adaptive Capacity and Vulnerability." *Global Environmental Change* 16: 282-92.
Snyder, Katherine. 2011. "'Time to Go': The Post-Apocalyptic and the Post-Traumatic in Margaret Atwood's *Oryx and Crake*." *Studies in the Novel* 43(4): 470-489.
Spinoza, Baruch. 2000. *Ethics*. G.H.R. Parkinson, trans. New York: Oxford University Press.
Stengers, Isabelle. 2013. *Au Temps des Catastrophes: Résister à la barbarie qui vient*. Paris: Éditions La Découverte
Stengers, Isabelle. 2015. *In Catastrophic Times: Resisting the Coming Barbarism.* Open Humanities Press.
Stern, Maria. 2006. "'We' the Subject: The Power and Failure of (In)Security." *Security Dialogue* 37(2): 187-205.
Stevenson, Jonathan. 2008. *Thinking Beyond the Unthinkable: Harnessing Doom from the Cold War to the Age of Terror*. New York: Viking.
Stoler, Ann Marie. 1995 *Race and the Education of Desire: Foucault's* History of Sexuality *and the Colonial Order of Things*. Durham: Duke University Press.
Stockton, Paul. 2007. "*The Edge of Disaster*, by Stephen Flynn." *Homeland Security Affairs* 3(4).
Sunstein, Cass. 2007. *Worst-Case Scenarios*. Cambridge: Harvard University Press.
Suskind, Ron. 2007. *The One Percent Doctrine: Deep Inside America's Pursuit of Its Enemies Since 9/11*. New York: Simon and Schuster.
Sutta, David. 2017. "Marking An End To This Hurricane Season, Here's A Look Back." CBS Miami. November 30, 2017.
Swiss Re. 2017. "Preliminary *sigma* estimates for 2017: global insured losses of USD 136 billion are third highest on *sigma* records." Preliminary Report. Online: http://www.swissre.com/media/news_releases/nr20171220_sigma_estimates.html
Swyngedouw, Erik. 2010."Apocalypse Forever?" *Theory, Culture & Society* 27(2-3): 213-232.
Taleb, Nassim. 2010. *The Black Swan: The Impact of the Highly Improbable.* New York: Random House.
Thacker, E. 2011. *In the Dust of this Planet: Horror of Philosophy vol. 1*. Washington: Zero Books.
Thrift, N. 2000. "Afterwords". Environment and Planning D: Society and Space 18: 213 55.
Tierney, K. 2001. *Facing the Unexpected: Disaster Preparedness and Response in the United States*. Washington, D.C.: Joseph Henry Press.

Toscano, Alberto. 2008. “The Open Secret of Real Abstractions.” *Rethinking Marxism: A Journal of Economics, Culture & Society* 20(2): 273-287.
Trachtenberg, M. 1991. *History and Strategy*. Princeton: Princeton University Press.
Trachtenberg. M. 1991. "A 'Wasting Asset': American Strategy and the Shifting Nuclear Balance, 1949-1954," History and Strategy. Princeton: Princeton University Press: 100-152.
Trump, Donald J. “Transcript of Trump’s Puerto Rico Remarks.” *Boston Globe*. October 3, 2017.
United Nations Office for Disaster Risk Reduction (UNISDR). 2015. “The Human Costs of Weather Related Disasters: 1995-2015.” United Nations Office for Disaster Risk Reduction (UNISDR). Geneva, Switzerland. URL: https://www.unisdr.org/2015/docs/climatechange/COP21_WeatherDisastersReport2015_FINAL.pdf
United Nations Secretary-General’s High-level Panel on Global Sustainability. 2012. *Resilient People, Resilient Planet: A Future Worth Choosing*. New York: United Nations.
U.S. Strategic Bombing Survey, *The Effects of the Atomic Bombings of Hiroshima and Nagasaki, Chairman’s Office*, 19 June 1946.
U.S. Congress. 2002. “Public Law 107–296: Homeland Security Act” Online: https://www.dhs.gov/sites/default/files/publications/hr_5005_enr.pdf
U.S. Congress. 2006. *A Failure of Initiative: Supplementary Report and Document Annex by the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina.*
U.S. Office of Homeland Security (US OHS 2002). 2002. *National Strategy for Homeland Security*. Online: https://www.dhs.gov/publication/first-national strategy-homelandsecurity
U.S. Department of Homeland Security (US DHS 2007). 2007. *National Strategy for Homeland Security*. Online: https://www.dhs.gov/national-strategy-homeland security-october-2007
U.S. Department of Homeland Security (US DHS 2011). *National Preparedness Goal*. Online: https://www.fema.gov/pdf/prepared/npg.pdf
U.S. National Security Resources Board (USNSR). 1950. *United States Civil Defense.* National Security Resources Board.
Vázquez-Arroyo, Antonio Y. 2013. “How Not to Learn From Catastrophe: Habermas, Critical Theory and the ‘Catastrophization’ of Political Life,” *Political Theory* 41(5): 738-65.
Vázquez-Arroyo, Antonio Y. 2012. “Antinomies of Violence and Catastrophe: Structures, Orders, and Agents.” *New Political Science* 34(2): 211-221.
Vázquez-Arroyo, Antonio Y. 2008. “Responsibility, Violence and Catastrophe,” *Constellations* 15(1): 98-125.
Vernon, Richard. 1979. “Unintended Consequences.” *Political Theory* 7(1): 35-71.
Voltaire. 2005. *Candide: Or, Optimism*. New York: Penguin.
Waever, Ole. 1995. “Securitization and Desecuritization.” In *On Security*, Ronnie Lipschutz, ed. New York: Columbia University Press.

Walker, Charles. 2008. *Shaky Colonialism: The 1746 Earthquake-Tsunami in Lima, Peru and Its Long Aftermath*. Durham: Duke University Press.
Walker, Jeremy and Melinda Cooper. 2011. "Genealogies of Resilience: From Systems Ecology to the Political Economy of Crisis Adaptation." *Security Dialogue* 42(2): 143-160.
Walter, F. 2008. *Catastrophes: Une histoire culturelle. XVIe- XXIe siècle*. Paris: Seuil.
Wells, H.G. 2008. *The Time Machine*. New York: Norton Critical Editions.
Williams, Michael J. 2008. "(In)Security Studies, Reflexive Modernization and the Risk Society." *Cooperation and Conflict* 43(1): 57-79.
Woollacott, Martin. "The Politics of Prevention." In *The Politics of the Risk Society*, Jane Franklin, ed. Malden, MA: Polity Press.
Wynter, Sylvia. 2003. "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation – An Argument." *CR: The New Centennial Review* 3(3): 257-337.
Wynter, Sylvia. 2002. "After Man, Towards the Human: The Thought of Sylvia Wynter." Keynote response, Centre for Caribbean Thought, University of the West Indies.
Yoon, Jin-Ho, et al. 2015. "Extreme Fire Season in California: A Glimpse into the Future?" *Bulletin of the American Meteorological Society* 96(12): 5-8.
Young, Iris Marion. 2003. "The Logic of Masculinist Protection: Reflections on the Current Security State." *Signs* 29(1): 1-25.
Zebrowski, Chris. 2013. "The Nature of Resilience." *Resilience: International Policies, Practices and Discourses* 1(3): 159-173.
Zebrowski, Christopher. 2009. "Governing the Network Society: A Biopolitical Critique of Resilience." *Political Perspectives* 3(1).
Zellen, Barry Scott. 2012. *State of Doom: Bernard Brodie, the Bomb, and the Birth of the Bipolar World*. New York: Continuum.
Žižek, Slavoj. 2006. "Philosophy, the 'unknown knowns,' and the public use of reason." *Topoi* 25(1-2): 137-142.
Žižek, Slavoj. 2003. *The Puppet and the Dwarf: The Perverse Core of Christianity*. Cambridge, MA: MIT Press.